SEE COMPETITION PROGRAMME, PAGE 88

THE BRICKBVILDER

AN ARCHITECTVRAL MONTHLY

VOL. 15

APRIL

1906

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THE BRICKBUILDER

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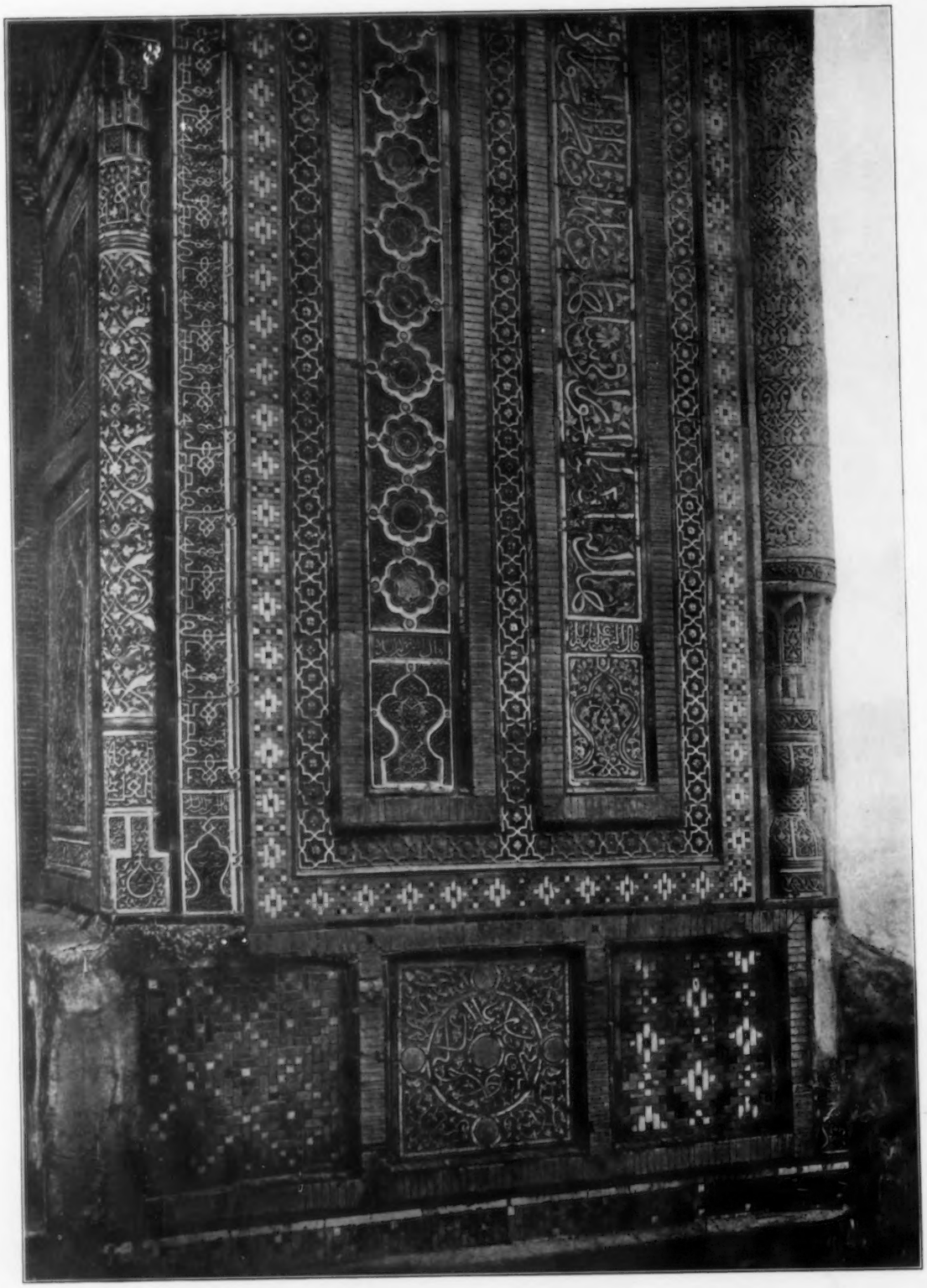
R. L. DAUS, J. H. FREEDLANDER, JAMES GAMBLE ROGERS
AND
HOUSES AT PORT SUNLIGHT, ENGLAND

LETTERPRESS



DETAIL OF A MAUSOLEUM AT SAMARKAND, PERSIA.

THE BRICKBVILDER

VOL. 15 No. 4 | DEVOTED · TO · THE · INTERESTS · OF ARCHITECTVRE · IN · MATERIALS · OF · CLAY | APRIL 1906

AND NOW SAN FRANCISCO.

THIS is beyond question the severest test which has been given to the steel cage construction. It would perhaps be impossible to construct an edifice which would be earthquake proof; but thus far there have been no published reports which would cause a modification of the first expressed beliefs that the buildings in San Francisco which were constructed on modern approved systems realized in this test all that had been expected of them.

However well the isolated structures may have withstood the combined effects of earthquake and fire, the fact undoubtedly remains that the heart of the city is swept pretty nearly clean; that practically all of it must be rebuilt. The city now offers a clear field, and the world will await with a great deal of interest the outcome of the attempts to build a new and a better San Francisco.

It is certainly to be hoped that one of the first results will be the dispelling of the idea that there is any business necessity for a business structure of more than eight stories in height. However the San Francisco buildings may have actually withstood the shock of the earthquake, it is unquestioned that other things being equal the high buildings would suffer most; and if the city is to avoid a repetition of the horrors and the terrible loss of property which it has just experienced its building laws must be at once so modified that building expansion shall be lateral rather than vertical, that no structure of any sort shall be allowed in the center of the city which could be so damaged by a slight earthquake shock as to be a menace to its neighbors, that absolutely nothing but first-class steel cage construction shall be tolerated within the business limits of the city. San Francisco owes it to itself, as well as to the country at large, to insist upon such regulations being carried out at once; for while the money damage appears to fall first and most heavily on San Francisco, a very large proportion of the loss is bound to be distributed over the whole country, so that we will all be losers by this terrible fire.

We will be losers by the fire if we consider only the material damage, but if this catastrophe leads to building a modern city properly from the ground up, we will at least have some compensation for this loss. The world, however, learns its lessons very slowly. The Chicago of 1876 was hardly better than the Chicago of 1866, though the fire made all things possible. Baltimore, with its fine chance to rebuild in a better and more thorough manner, failed almost entirely to make any real improvement; but in the two years since the Baltimore fire this country has awakened to a sense of civic duty which was never experienced before. Most of our large cities have felt the necessity for beautifying the municipality, and large, carefully thought out schemes of municipal improvement have been considered, and in some cases partially carried out. San Francisco itself has felt the movement, for before this disaster a scheme was partially worked out providing for a very comprehensive municipal improvement. So that we can at least hope that the discouraging inertia which prevented the proper rebuilding of Baltimore may give way in San Francisco to the enthusiasm on the subject of municipal art which has sprung up in such widespread manner of late years.

In this rebuilding the architectural profession has its great opportunity. Of course most of the buildings which will be constructed immediately will be of the crudest type and will afford very little opportunity for architectural display, if, indeed, architects are employed upon them at all. But with the field so nearly free it ought not to be assumed for a moment that the old lines are to be followed, as they were in Baltimore; but that when the first hysteria of fright and distress shall have passed away the lines of the new city shall be laid out right, and that what is done, either for public or private work, shall be parts of a scheme which will commend itself to those who have studied this question so carefully. This is not an occasion for individual greed. The architectural profession will undoubtedly have a great deal to do, and the San Francisco architects will be rushed with work as they never were before; but we hope that the profession in the western city will pull as a unit for better, more beautiful building, and will not let themselves be swept off their feet by the desire for haste, nor allow petty jealousies and professional distrust to interfere with the kind of coöperation which is so essential to a city beautiful.

The first feeling in the presence of a catastrophe of this nature is one of hopeless helplessness. The forces of the earth and of the fire seem too much for man's strength, while we ask ourselves how soon a similar catastrophe could recur. There is one fact about which we can be perfectly sure; — San Francisco will be rebuilt, and rebuilt at once. Earthquakes will undoubtedly come again, but if the city is to be prepared to meet them the reconstruction must be throughout of steel, knit together as we know perfectly well how to do it, and thoroughly protected against the flames which will ever be with us. Steel construction and a severe restriction of height is the answer to the San Francisco catastrophe; and coöperation and determination to do the best, and to make the city beautiful, must be the keynote for the work which is to lie before the architectural profession.

Buildings of the Young Men's Christian Association. III.

BY IRVING K. POND, C. E., ARCHITECT.

(*Continued from page 52, March number.*)

AS the systematic training of the body is one of the three primary functions of the Christian Association in its development of young manhood, the space devoted to this work must receive full and careful consideration in the planning of the building. The gymnasium is not all there is to the Association building, any more than athletics is all there is to college life, though the volume of noise would almost make the outsider think so. However, the gymnasium and its appurtenances are of sufficient importance to merit a fairly close study here. Other rooms may be adapted or readapted to other purposes than those originally intended, but the gymnasium can be nothing but a gymnasium. It never can be a banquet hall nor an audience room and impart to the banqueter or the auditor any sense of congruity, and every extraneous use to which the gymnasium is put robs it of its proper and higher use as a gymnasium. Club-rooms opening into one another give more congenial surroundings for feast or flow of wisdom.

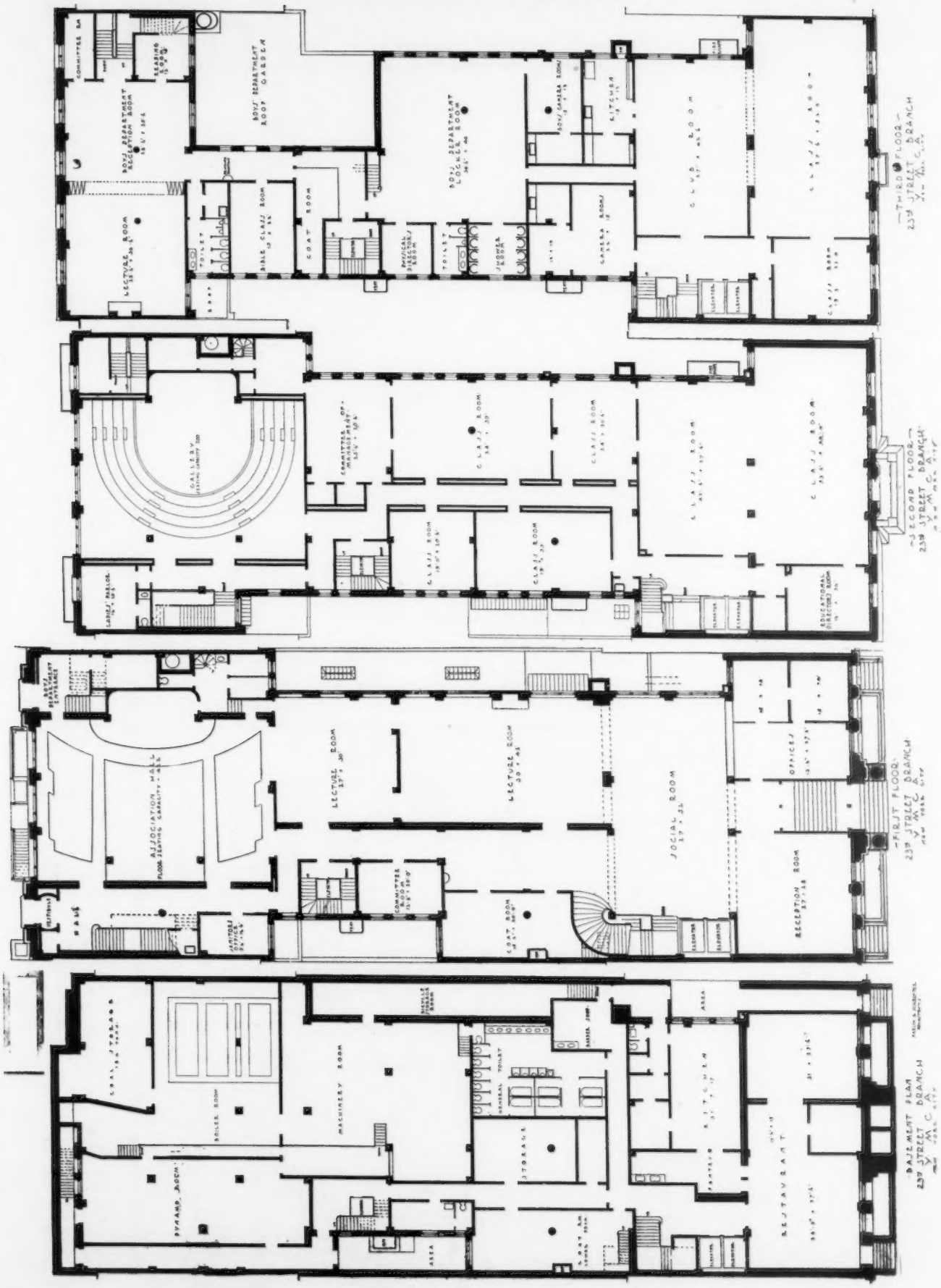
YOUNG MEN'S CHRISTIAN ASSOCIATION BUILDING, WEST TWENTY-THIRD STREET, NEW YORK.
Parish & Schroeder, Architects.

The character of work done in the gymnasium in a great majority of Associations is broad in the extreme, including as it does class work in calisthenics, hand, basket and indoor base ball, apparatus and track work. The spirit of the times is forcing the work more and more into competitive lines, to the exclusion unfortunately of pure gynmastics, for there is nothing better than tumbling and apparatus work, such as the use of the bars, horizontal and parallel, the rings and horses, to develop the body, and the spirit through the body, while the spiritual gain in the "meets" and competitive games is problematical, to say the least. Possibly the discussion of these matters will seem as remote from the purpose of this paper as a discussion of styles, so it will not be continued. However, whether athletics or gymnastics is to dominate will affect in a marked degree the equipment and conduct of the gymnasium. Track work calls for the running track, and no running which is for speed rather than for exercise can be done on a track in a room under fifty feet square. In a room under forty feet square the track curtails the space required for indoor and basket ball. A room forty by sixty feet, ground dimensions, is a well proportioned room for general work, and is found to be practically the minimum where athletics is to be indulged in extensively. The size of the regular classes dictates the dimensions of the room in many cases. Each adult requires at least forty square feet and each youth at least thirty square feet of floor area for class work in calisthenics.

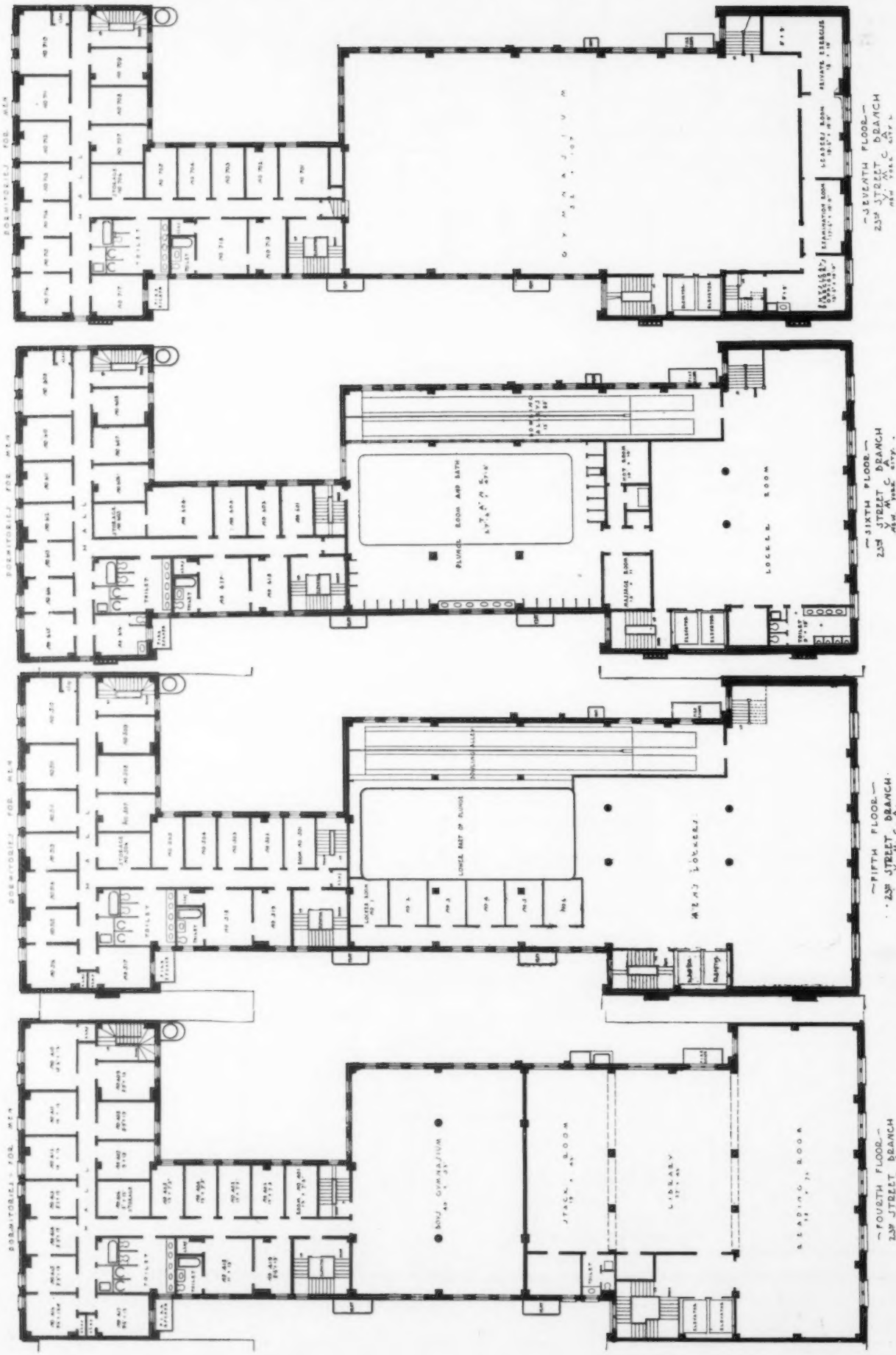
If, as is the tendency, athletics is to monopolize time and space in the gymnasium, smaller rooms should be provided for apparatus, for tumbling and wrestling and bag punching. Bag punching especially should be given its own proper environment, as no other work can be carried on simultaneously with it in the same room. The indiscriminate batting or throwing of balls about the gymnasium — a disease which, together with a general roughness of play, seems to be incidental to athletics — is dangerous to limb and discouraging if not disastrous to fine work in any acrobatic or gymnastic line which is attempted in the same room.

It is well to panel the walls of the gymnasium in wood to such a height as may be required to attach all wall apparatus For unity of effect and to meet all conditions, this paneling would best reach from the floor to the underside of the running track. The pipes or coils which supply heat by direct radiation should be suspended from the supports of the running track and not set on wall brackets, nor ever be placed upon the floor of the gymnasium. To place radiators upon the floor is both dangerous and uneconomical of space. Registers for indirect heating and ventilating should be placed in the walls. The platform of the running track is rarely at a lesser height than eight feet in the clear from the floor, more generally a clearance of ten feet is desirable, and even more than this should be given if the track is more than moderately wide and if general work is to be carried on upon the floor under the track. To the walls under the gallery are attached the chest weights, the machines for developing special sets of muscles, the club and dumb-bell racks, the ladder bars, etc., etc.

There are no fixed standards of gymnasium equipment, but each Association will furnish and equip according to its means and the necessities. No list of apparatus is attempted here. Data is furnished in pamphlets, catalogues and through correspondence by the various makers of gymnasium goods and apparatus. These makers, in conjunction with a trained secretary who has studied the situation, can balance cost over against needs and desires and so furnish a satisfactory equipment. The curved forms and padding of the run-



PLANS, YOUNG MEN'S CHRISTIAN ASSOCIATION BUILDING, WEST TWENTY-THIRD STREET, NEW YORK CITY.
Parish & Schroeder, Architects.



(Eighth Floor, Upper Part of Gymnasium and Sleeping Rooms. Ninth Floor, Sleeping Rooms and Roof Garden.)

PLANS, YOUNG MEN'S CHRISTIAN ASSOCIATION BUILDING, WEST TWENTY-THIRD STREET, NEW YORK CITY.

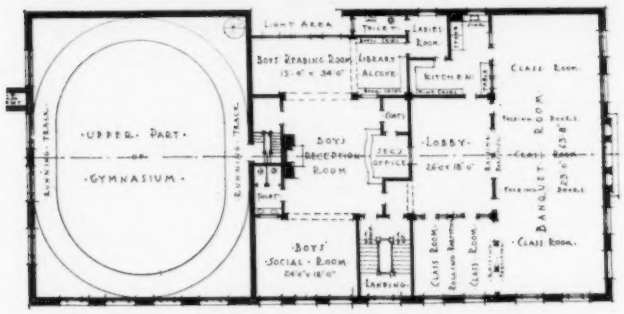
Parish & Schroeder, Architects.

ning track are regarded as a part of the equipment, and unless the building is in the hands of an architect competent in gymnasium planning the track bed should be furnished and installed by the makers, at least data as to radii and inclinations should be furnished by them.

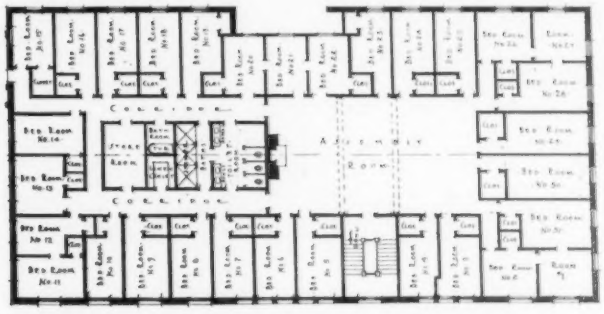
The billiard and pool tables and the bowling alleys, which are coming more and more to be attractive features of Association club life, are to be considered as aids to the social rather than the physical development. The alleys are mentioned here because of their necessarily close proximity (in a good plan) to the locker rooms and the baths. When alleys are installed it should be in pairs, and the practical work of manufacture and installation can best be done by the specialist. The plan should afford convenient and readily accessible space for spectators, in addition to the space allotted to the players and separated therefrom. The visitors' space should be entered independently of the players' space, and from a public corridor and not through locker or other private rooms. Extreme care should be exercised in the construction of the alley room that the noise and shock shall not be communicated to other portions of the building. In general, the best situation for the alley room will be found to be directly beneath the gymnasium when the main floor of that room is not coincident with the basement floor.

The location and relative positions of the gymnasium and its appurtenances must be given the fullest consideration. An ideal arrangement in buildings of the medium size is to have the main floor of the gymnasium above the locker rooms, and to have the locker rooms, baths, toilet and swimming pool in one and the same story. Where cramped floor area requires it, the pool and bowling alleys, and toilet and baths even, may be in the story immediately beneath the locker rooms. The locker rooms should be airy and well ventilated, by forced draught if needs be. There should be separate and separately entered compartments, containing in one the men's lockers, in another lockers for youths, and in a third the boys' lockers. It is well that these classes should not commingle in the locker rooms. The men's lockers are the largest in size, those for the youths somewhat smaller and the boys' lockers of still lesser dimensions. These lockers are made in metal or of wood of standard sizes, by regular makers who will furnish lockers or data. Not infrequently it has been found desirable to cater to another and distinct class of members, the business men, who are provided with a separate room furnished with lockers of the largest size or with individual dressing rooms and equipped with separate showers and toilet. Such lockers or dressing rooms rent at a much higher rate than do the ordinary lockers, and are furnished as an inducement to business men to aid in the work of maintenance. Individual dressing rooms for the regular members, rented at what would seem to be even a high rate, have been found to be not economical of space and in some instances are being abandoned. In the larger Associations, however, it is well to provide a few individual dressing rooms.

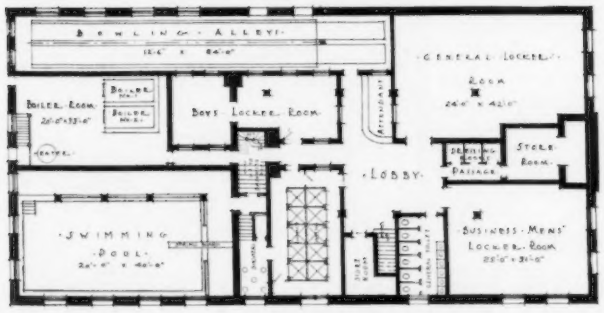
The subject of the baths calls for careful consideration, both as to the location and as to the type. In location the baths should be convenient both to toilet and locker rooms. For Associations which cater to athletics the shower is the most desirable form to install. The sharp shower and hard rub are most invigorating after violent team or track work. The tub generally is little used except by members who seek only the luxury of the bath. In a majority of Associations are to be found a



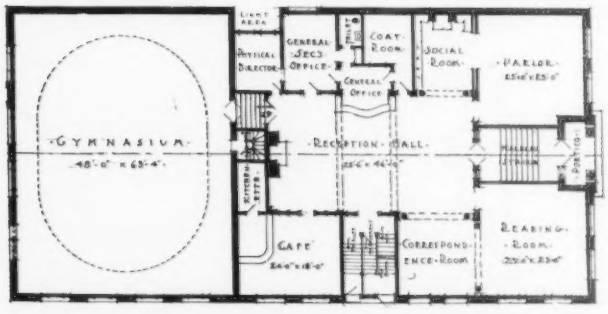
SECOND FLOOR PLAN.



THIRD FLOOR PLAN.

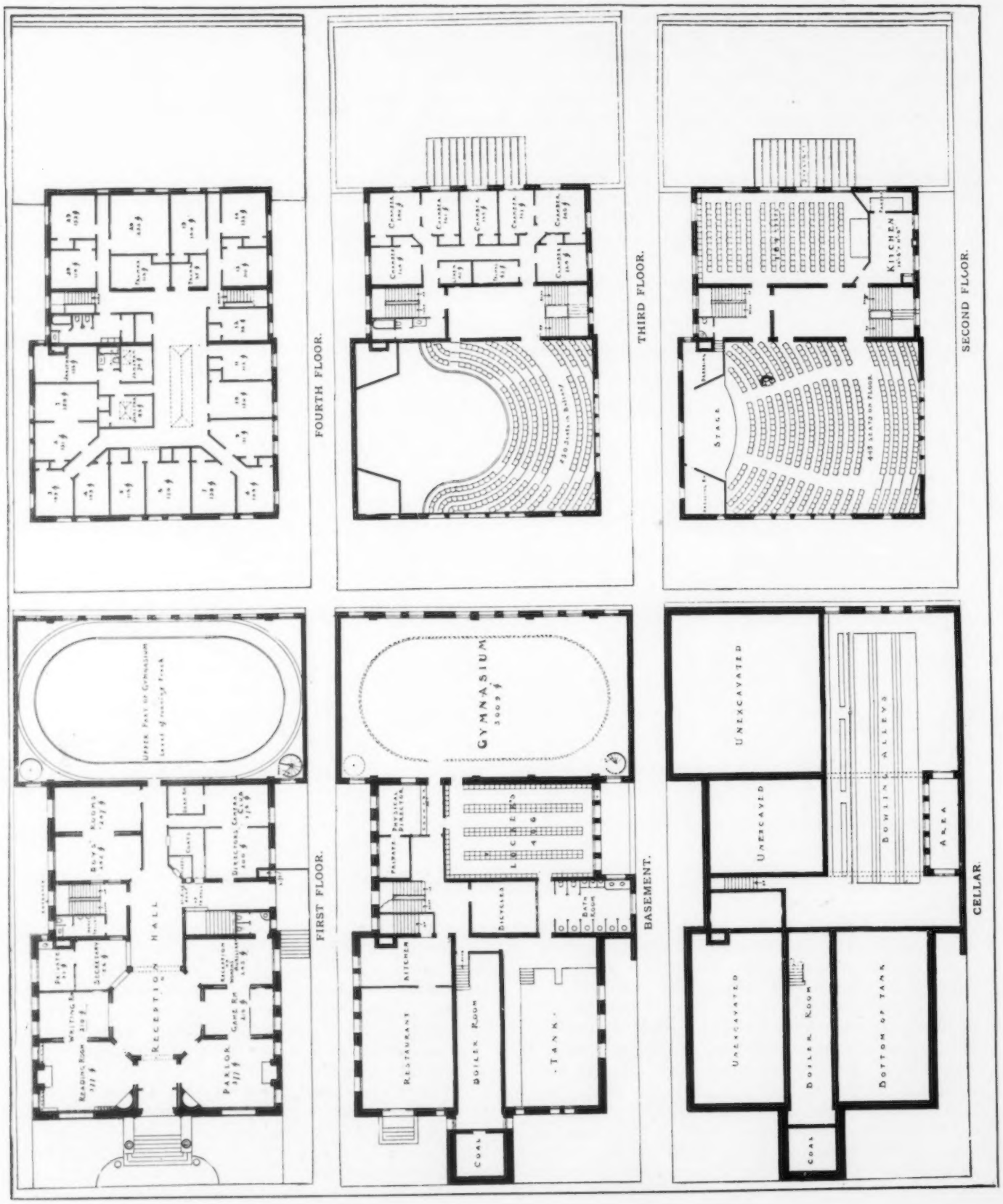


BASEMENT PLAN.



FIRST FLOOR PLAN.

PLANS, YOUNG MEN'S CHRISTIAN ASSOCIATION BUILDING, JACKSON, MICH.
Leonard H. Field, Jr., Architect.



PLANS, YOUNG MEN'S CHRISTIAN ASSOCIATION BUILDING, SOMERVILLE, MASS.

Brainerd, Leeds & Russell, Architects.

YOUNG MEN'S CHRISTIAN ASSOCIATION BUILDING, SOMERVILLE, MASS.
Brainerd, Leeds & Russell, Architects.

few members who care for the bath independently of the exercise. Where such conditions exist one tub to six or eight showers will be found to be ample. The showers (which should have shower and not needle heads) should be supplied with hot and cold water which shall flow through a mixer or mixing valve, so perfect in its operation that water at the extreme of heat or cold need never strike the body unless the bather so desires. A steam room and a massage table are desirable features of any bath equipment, but features which are not absolutely necessary in the smaller and more moderately endowed Associations.

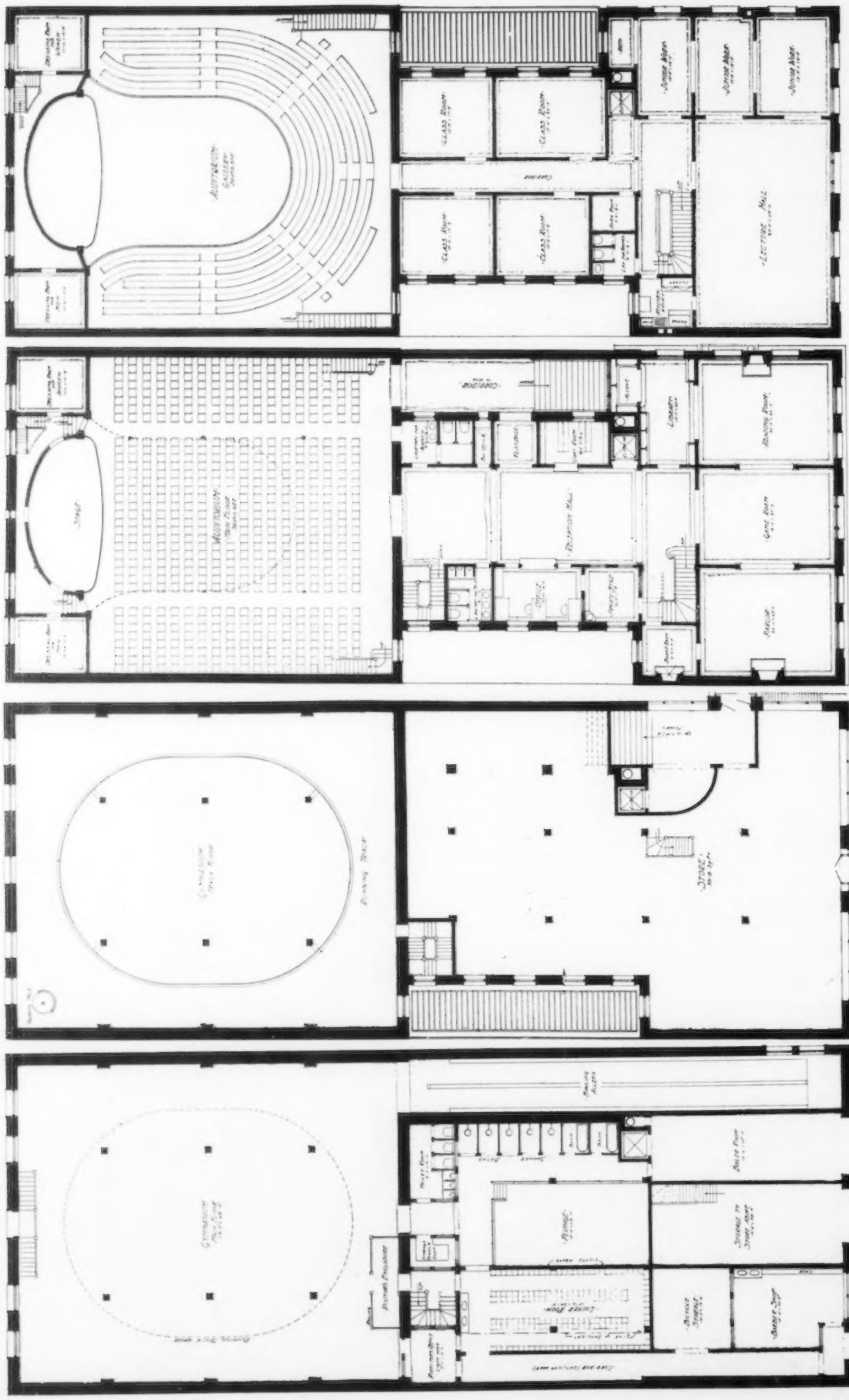
Two important considerations arise in connection with the location of the swimming pool: first, its posi tion with reference to the toilet and locker rooms; and, second, its situation as affecting economy of operation. The necessity of frequent changes in the entire body of water in the pool makes it desirable that its bottom should be well above sewer line, otherwise a sump and expensive pumping are required. Against this item of continued expense must be set off the extra cost of the increased size of the building and of constructing the pool out of the ground, as will be necessary if its bottom is above basement floor level. In solving this problem local conditions must control. An item which affects economy of cost, both of construction and operation, is the size of the tank. The general desire is for large pools of, say, twenty feet by sixty feet in clear dimensions, with water eight feet deep at the deep end. As great a length as possible is desirable in long-distance swimming contests, and great width is desirable for races and games. Swimming can be learned and enjoyed and can be made to furnish sufficient exercise in a much smaller pool, in one say eighteen feet by forty feet clear measurement, with depth of water the same at the ends as in the case of the larger pool. But as remarked before, contests, races and games rather than sane health building exercise seem to be the tendency of the day. The average number of bathers dictates in a measure the size of the pool.

Access to the swimming pool should always be had through a vestibule containing showers, where the person is thoroughly cleansed before the bather is permitted to enter the pool. The reason in this is sufficiently apparent. The clear height above the water should be such as to allow the use of a spring board and, if possible, of a horizontal bar. It is well, when conditions are favorable, to furnish the tank room with a considerable space for spectators that aquatic games and swimming matches may be witnessed. The approach to this space follows the rule which governs the approach to similar spaces in the bowling alley and the gymnasium proper.

A practical matter, touching upon economy of service, is that relating to the positions of the locker, bath and toilet rooms. These rooms should be entered severally and directly from an anteroom in which are located the desk of the attendant, the towel cabinet and the supply cases. Where conditions demand it a bicycle storage room for the use of members may be provided on or near the ground level and as convenient to the locker room as may be.

It has been the purpose of these papers to present the definite and distinctive points which must be considered in the planning of buildings for the Young Men's Christian Association in the United States. In what manner and how effectively these various points have been met in the plans which accompany these notes is left for the reader to determine. Into a study of the plans let this consideration enter: any plan which comes from an archi-

YOUNG MEN'S CHRISTIAN ASSOCIATION BUILDING, ALLENTOWN, PA.
Wallace E. Ruhe, Architect.



THIRD FLOOR PLAN.

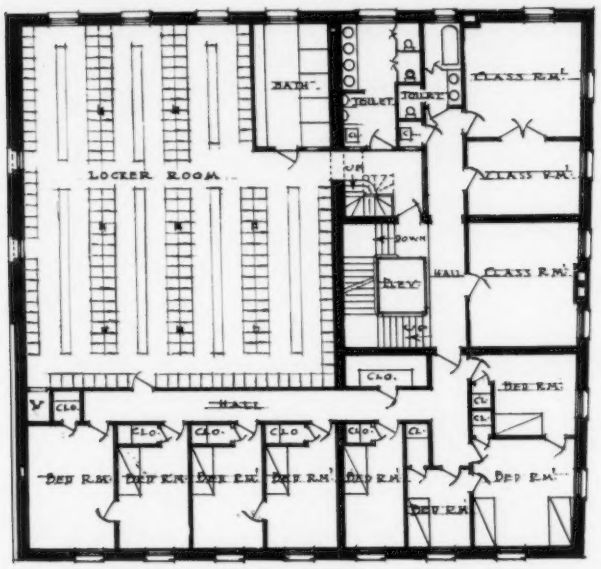
SECOND FLOOR PLAN.

FIRST FLOOR PLAN.

BASEMENT PLAN.

PLANS, YOUNG MEN'S CHRISTIAN ASSOCIATION BUILDING, ALLENTOWN, PA.
Wallace E. Ruhe, Architect.

tect of reputation, and which seems at a glance to reveal a discrepancy or an idiosyncrasy, may call for a study of conditions. So if an auditorium seems overlarge for the plan, it may be, as in at least one case it is, that the nature of the work in that special locality demands that an intellectual and spiritual appeal be made to the public at large. If the gymnasium seems oversmall, it may be that the out-of-door life and sports, summer and winter,



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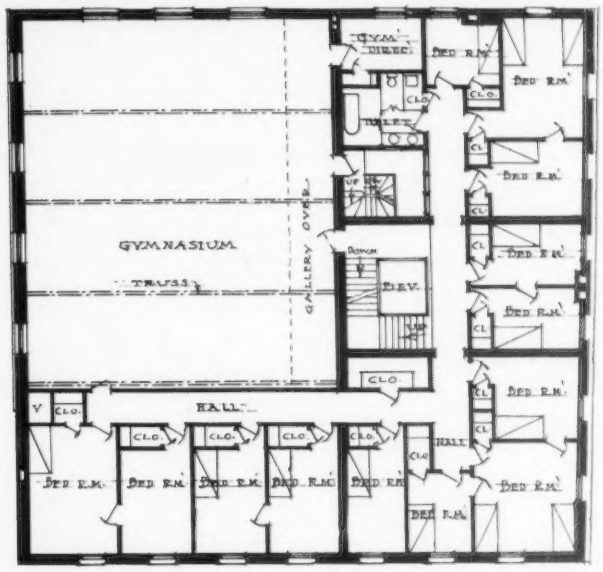
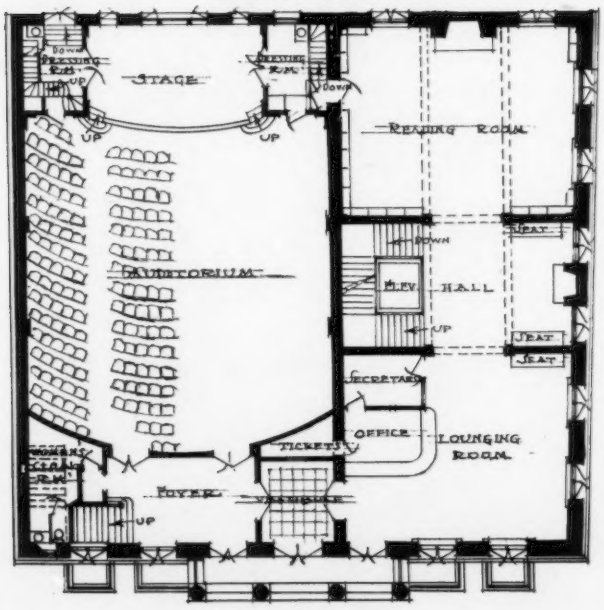
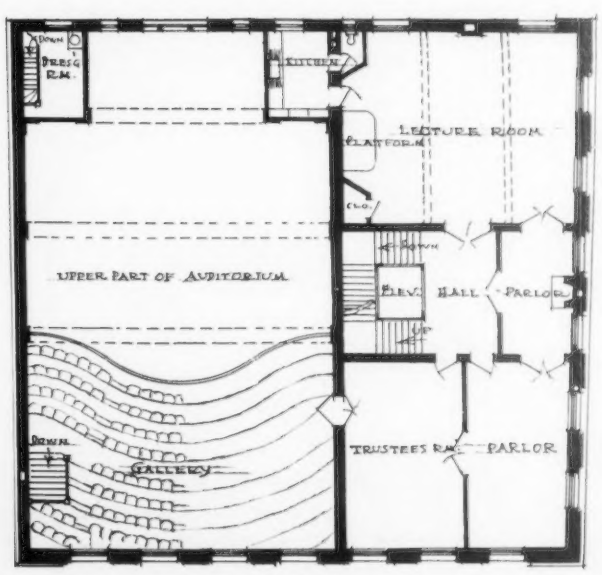


FOURTH FLOOR PLAN.



FIRST FLOOR PLAN.

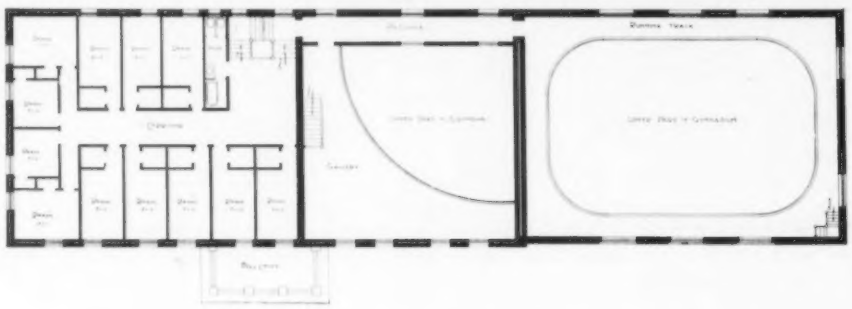


SECOND FLOOR PLAN.

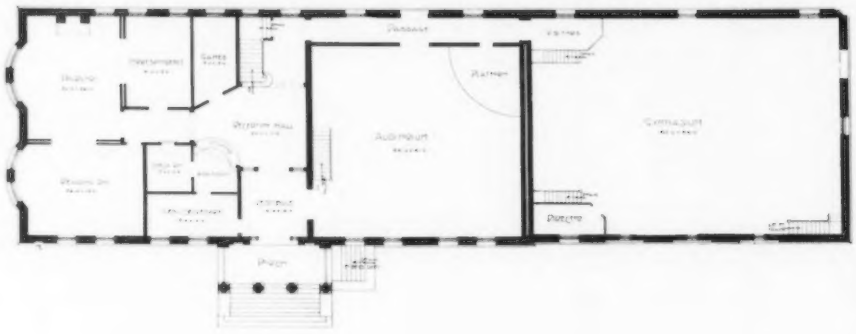
PLANS, YOUNG MEN'S CHRISTIAN ASSOCIATION BUILDING, HARRISBURG, PA.
York & Sawyer, Architects.

of the community which supports the Association make altogether unnecessary a larger and more thoroughly equipped room for indoor exercise. If the social rooms seem to outweigh in importance the classrooms, it is barely possible that club interests or an awakened spiritual consciousness in that locality have been found to be a much more vital factor than a call to the intellectual life in saving and reclaiming boys and young men from the streets, with all that that means. If school and lecture rooms predominate it will undoubtedly be found that in its work the Association is catering to the tastes of a serious-minded constituency which is ambitious and determined to rise above the deadly plane of daily life in office and shop.

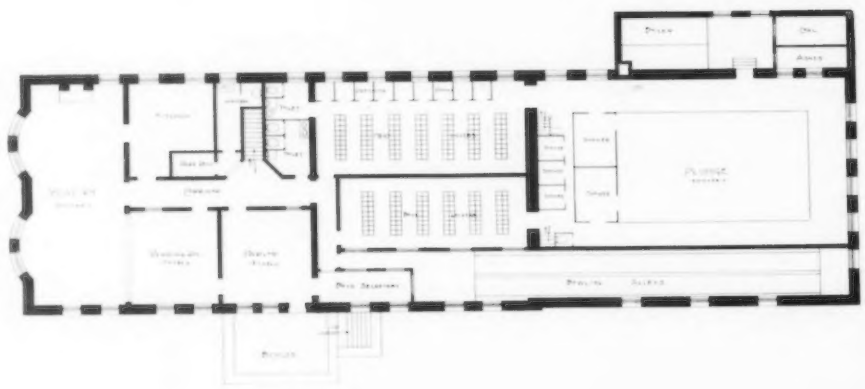
The work of the Association is broad, and each locality will be found to present its own interesting and individual problems. To solve these problems is the duty of the well-trained and sympathetic secretary, sustained by a broad-minded and sympathetic board. To appreciate the view-points of secretary and of board, to grasp understandingly the greater problem and to make the building in beauty and simplicity minister economically and effectively to all the needs of the work, is the interesting task set for the architect who is called upon to serve professionally the Young Men's Christian Association.



THE SECOND FLOOR PLAN.



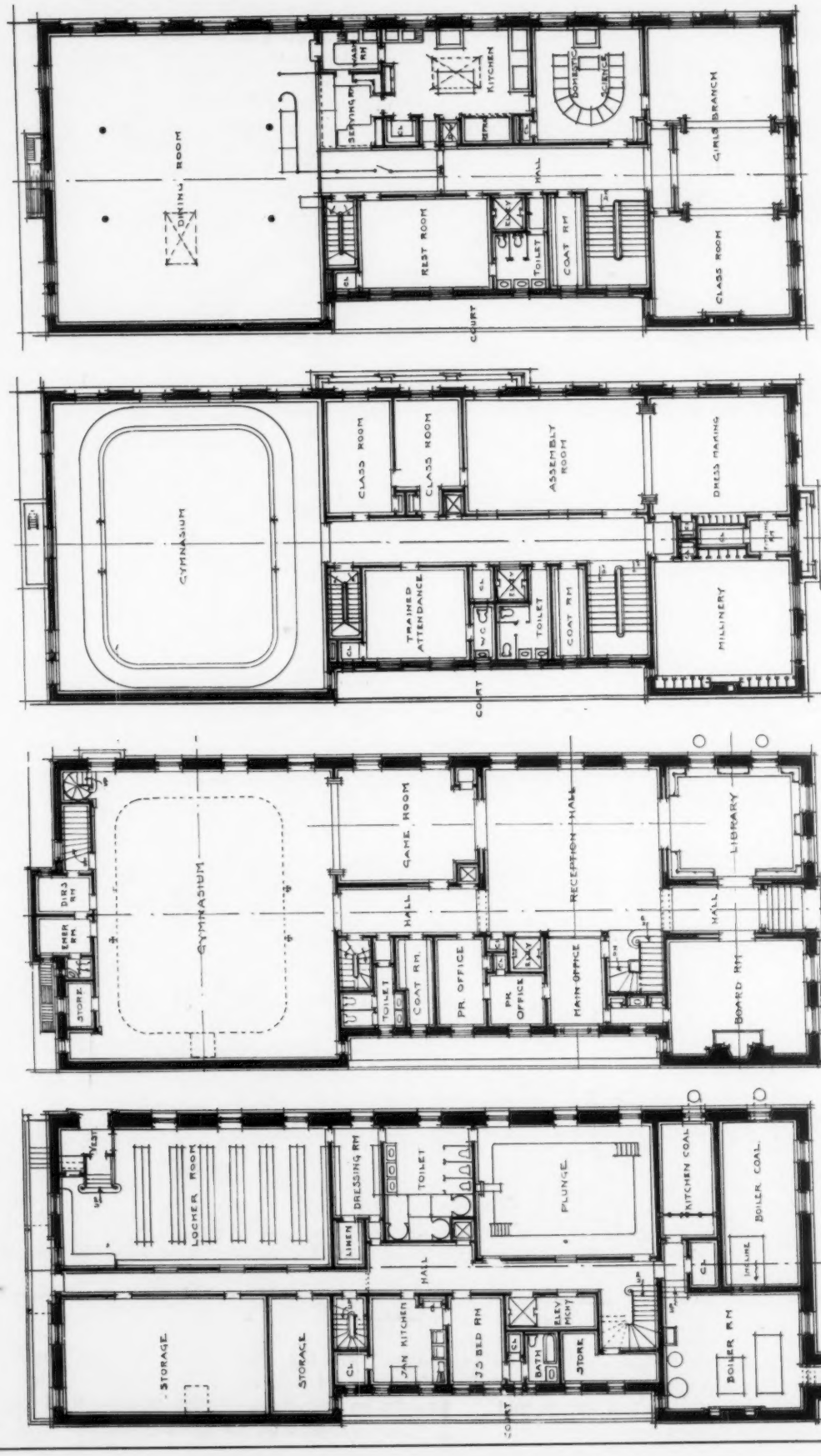
THE FIRST FLOOR PLAN.



THE BASEMENT PLAN.

YOUNG MEN'S CHRISTIAN ASSOCIATION BUILDING, COLORADO SPRINGS, COLORADO.

Thomas P. Barber, Architect.



THIRD FLOOR PLAN.

SECOND FLOOR PLAN.

FIRST FLOOR PLAN.

BASEMENT PLAN.

PLANS, YOUNG WOMEN'S CHRISTIAN ASSOCIATION BUILDING, PATERSON, N. J.

Welch, Smith & Provot, Architects.

The Hotel Blenheim.

A NEW TYPE OF CONSTRUCTION.

BY J. FLETCHER STREET.

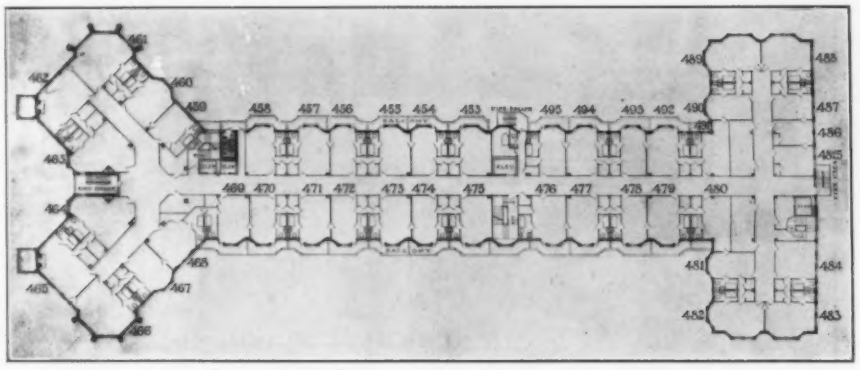
THE one thought which should be kept in mind in designing a hotel is that the construction be of a type which meets every requirement and condition of a truly fireproof building. In the Blenheim, erected at Atlantic City, N. J., the architects have given due consideration to this most vital and important point, and have studied it both in the light of their own experience and by the results of severe and practical tests so recently imposed upon fireproof and so-called fireproof structures.

The building is about 600 feet long, 125 feet wide, eight stories high, with a dome equal to twelve stories in height. It was started on June 12, 1905, and was practically completed, ready for finishing and furnishing, on December 1, 1905.

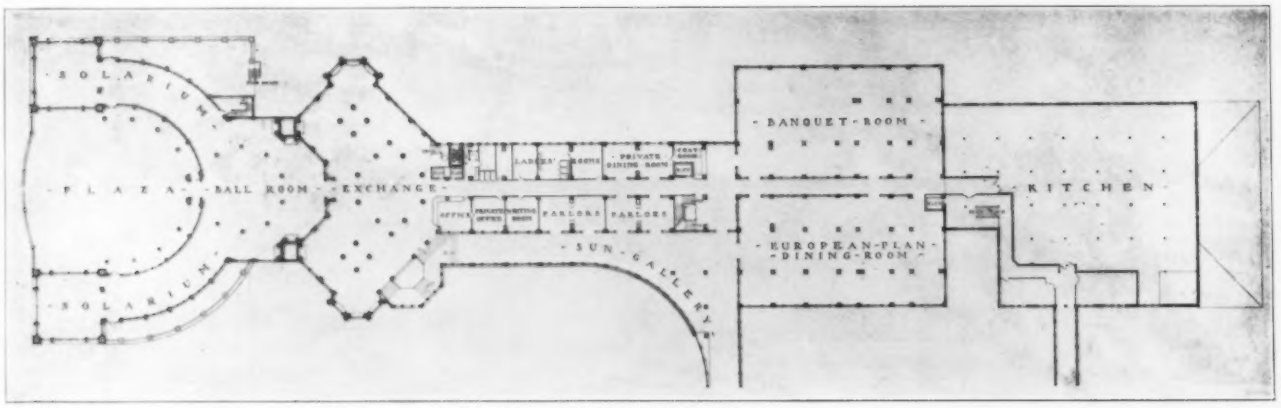
A time limit for the completion of the building having been imposed, it was thought advisable not to take chances with the uncertain conditions of the steel market, as former experiences had shown that much serious delay frequently results from this source. Another and perhaps one of the strongest objections to the use of structural steel was the noise that would result in the assembling of members and in the driving of rivets. As this would be a disturbing element to the guests of the Marlborough, an adjacent hotel and one under the same management, a construction thoroughly practical, and yet one that could be carried forward with the least possible delay and in the quietest manner, needed to be decided upon.

Estimates were obtained for steel fireproofed with hollow tile, and an armored concrete and tile construction. Not only was the latter system cheaper, but it was the only type which could be guaranteed, under a heavy penalty, to be completed within the specified time.

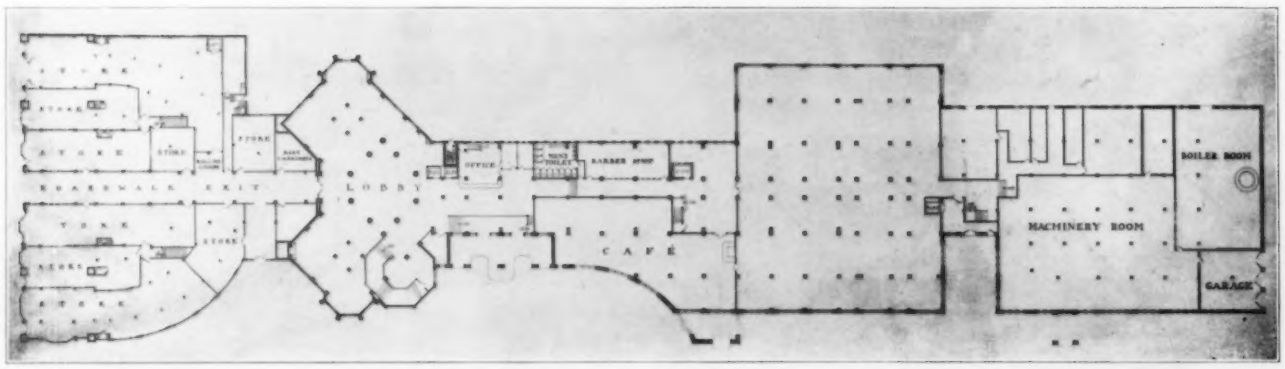
The contract price for the clay tile and concrete construction — the one adopted — was $126,000, while the



TYPICAL BEDROOM FLOOR PLAN.



FIRST FLOOR PLAN.



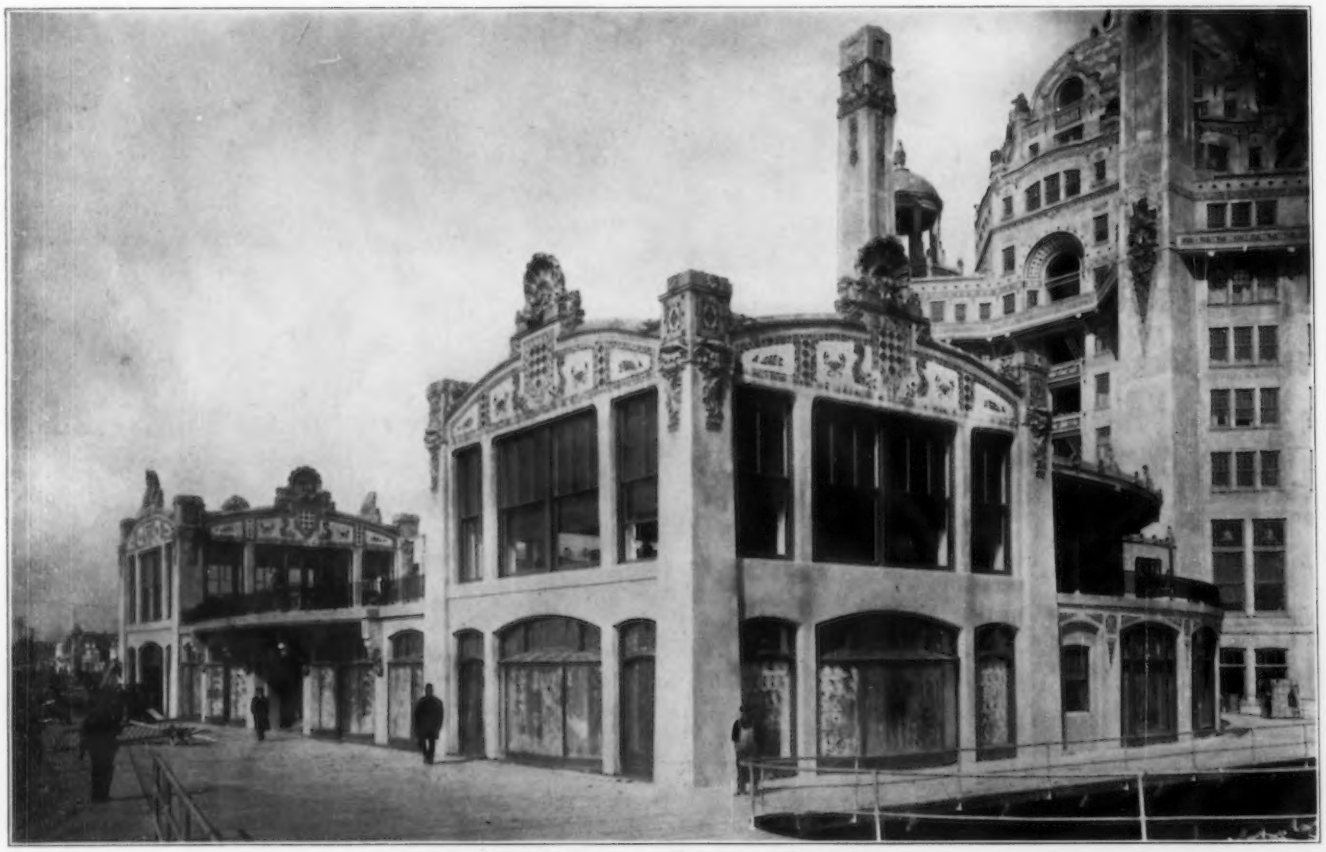
GROUND FLOOR PLAN.

FRONT OF THE HOTEL FROM THE PLAZA.

THE NEW HOTEL BLENHEIM, ATLANTIC CITY, N. J.

Price & McLanahan, Architects.

FRONT AND SIDE VIEW FROM BOARDWALK.



PAVILIONS, CONTAINING THE STORES AND SOLARIA.

THE NEW HOTEL BLENHEIM, ATLANTIC CITY, N. J.

lowest bid for the steel and tile construction was $220,000. The steel necessary for the latter construction could not have been had under four months, whereas work was immediately begun with the system adopted and carried on at the rate of about a floor per week. With the successful issue of the building the fact has been clearly demonstrated that here is a system of fireproofing which can not only be installed in less time than is required by any other system, but also at a much less cost.

A thorough consideration of all these conditions made clear the pronounced advantages of this construction under the requirements imposed.

The significant feature of the construction is the introduction of hollow tile in combination with the concrete floor slab. The exterior walls are built entirely of hollow tile, the floors being of long span hollow tile construction, reinforced with steel bars, and reinforced columns and girders of concrete. Twelve-inch terra cotta tiles, varying in depth according to span, were placed between the lines of concrete joists, which had a uniform width of four inches.

Besides greatly lightening the construction, this system has the advantage of giving a drier floor and one more nearly sound-proof. But the remarkable distinction is realized in the shorter time occupied in erection over that consumed by any system where a solid concrete slab is used.

The use of hollow clay tile in the outside walls of the building was peculiarly advantageous. With this came the solution of giving the finished cement surface of the building the desired bond back into the body of the wall, which is of the utmost importance where surfaces so treated are exposed to driving storms of great energy common along the coast. The outside surfaces of these wall tiles are made with a depressed groove which gives a very strong bond to the plaster. The double air-chambers of the tile make impossible the conveyance of water through the wall. One of the greatest advantages gained is in the elimination of inside wall furring, the plaster being applied direct to the tile. Many other advantages are gained, such as the greatly decreased cost of insurance and repairs, and the more satisfactory insulation of heat and cold.

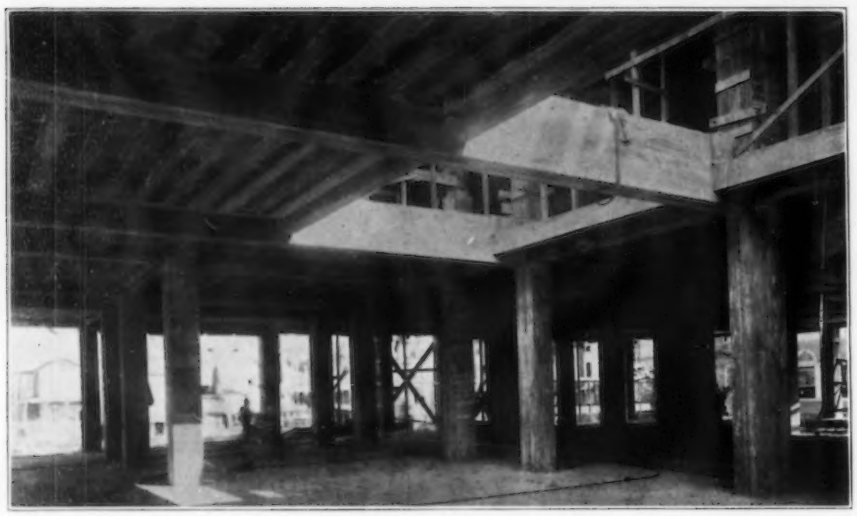
BALCONIES TO BEDROOM FLOORS.

A GABLE TREATED WITH INLAID TILE.

This use of a definite principle in regard to the construction has given rise to a certain expression in the design which accentuates the sturdy character and strong masses of the structural parts. This is particularly evident from within, where the beams and girders necessary to meet the requirements of durability are carefully considered in their treatment so as not to detract from the feeling of the real purpose of the construction.

The structure in itself is virtually monolithic. With a foundation of piles it rises from floor to floor by means of solid concrete piers regularly diminishing in size as they ascend. Into these are framed the necessary girders and beams for supporting floor joists and outside walls. All walls are curtain walls and are carried at each floor level by their respective girders. This gives the great advantage of permitting work to be advanced at any number of story levels at the same time.

The building as an architectural achievement is most interesting, the design being influenced somewhat by ancient types of Spanish and Mexican work. In the treatment of the exterior the true character of the construction has been frankly confessed. The walls are coated with a gray cement, the dullness of which is relieved by a liberal use of colored tiles in friezes, spandrels and panels. The designs are simple and almost entirely geometric in character, and in only a few instances has the desired effect been sought in a pictorial way, the most con-



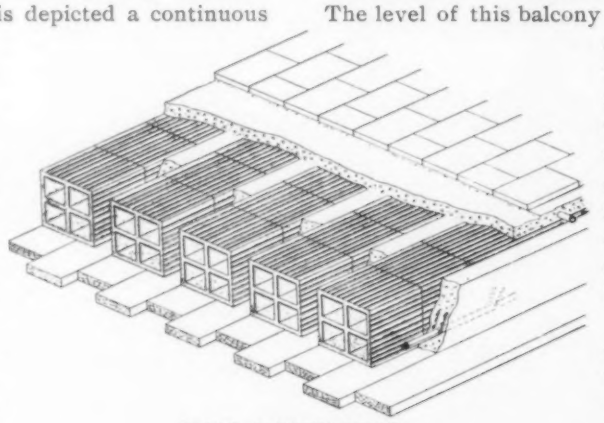
These floors are of varying span between girders according to the exigencies of the plan, and are for spans up to 18 feet. After the wood centering is in place, the tiles, which are 8x8 inches with cross webs, are set end to end in tiers about four inches apart. The reinforcing steel bars are then set between them, and the concrete is tamped into this space.

spicuous example being the band encircling the head house at the sixth floor level. Here, within a well defined border of dull blue tile, is depicted a continuous series of sporting dolphins executed in red. Whether or not the detail of this decoration appeals to one, it must be allowed that the general effect is brilliant and a decided relief to the more conventional forms employed.

Otherwise than in these panels and bands of tile the entire exterior decoration consists of ornamental terra cotta of a suitable light green shade. The manner of applying the cement coating to the outer walls deserves notice. The exposed outer surface of concrete columns and beams being in the same plane as the tile blocks of the wall, a different strength of cement mortar was found necessary in the application of the scratch coat on account of the varying adhesive quality of the two materials, and it was only in the finishing coat that a uniform mix could be applied to the surface of the walls.

The dome has been made the principal feature in the design of the exterior. This motif results by a number of interesting transitions which occur above the sixth floor level, where the typical nature of the floor arrangement ceases. This permits the introduction of broad and spacious balconies along these upper stories, giving a distinct advantage to rooms opening thereon. At the eighth floor level two smaller domes occur, forming cover for the porches at this point. These very successfully balance the main dome and, with their heavy buttressed angles, mark the return of the broadly extending head house into the narrow and somewhat attenuated body structure.

At the front of these, forming perhaps the most conspicuous features of the entire building, are the two broad stacks which mark the termination of the principal mass of the structure. Each of these stacks encloses a series of flues leading from the fireplaces located in the special suites planned for this portion of the building. The large fireplaces in the exchange, solarium and lobby also have their outlets into these stacks. The long façade of the body house is happily relieved by a series of bays extending through the first four sleeping floors. These are broken by a continuous balcony at the fourth floor level, following in its contour the lines formed by the projecting bays. The level of this balcony is abruptly changed and raised another story when the rear wing is reached, confessing in a satisfactory manner the extra story height of this part. All these balconies are partitioned off between the individual rooms, so that the result is one of a series of private porches extending entirely around the building.



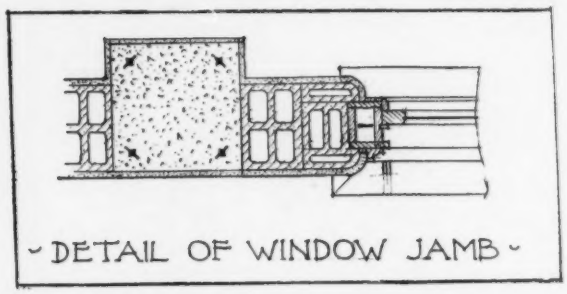
FLOOR CONSTRUCTION.

The accompanying floor plans show that the hotel may be entered directly from the Boardwalk through a spacious corridor flanked on both sides by stores, which in their character will add greatly to the convenience and accommodation of the hotel guests. This passage leads directly into the main lobby. Here is found a low extending hall, which runs back towards the center of the building, where the secondary entrance

SHOWING EXTERIOR WALLS OF HOLLOW TILES DEEPLY GROOVED TO GIVE A STRONG BOND TO THE PLASTER FINISH.

from Ohio Avenue is situated. It is provided with the usual administrative accessories, and has space set apart to be used as writing and billiard rooms.

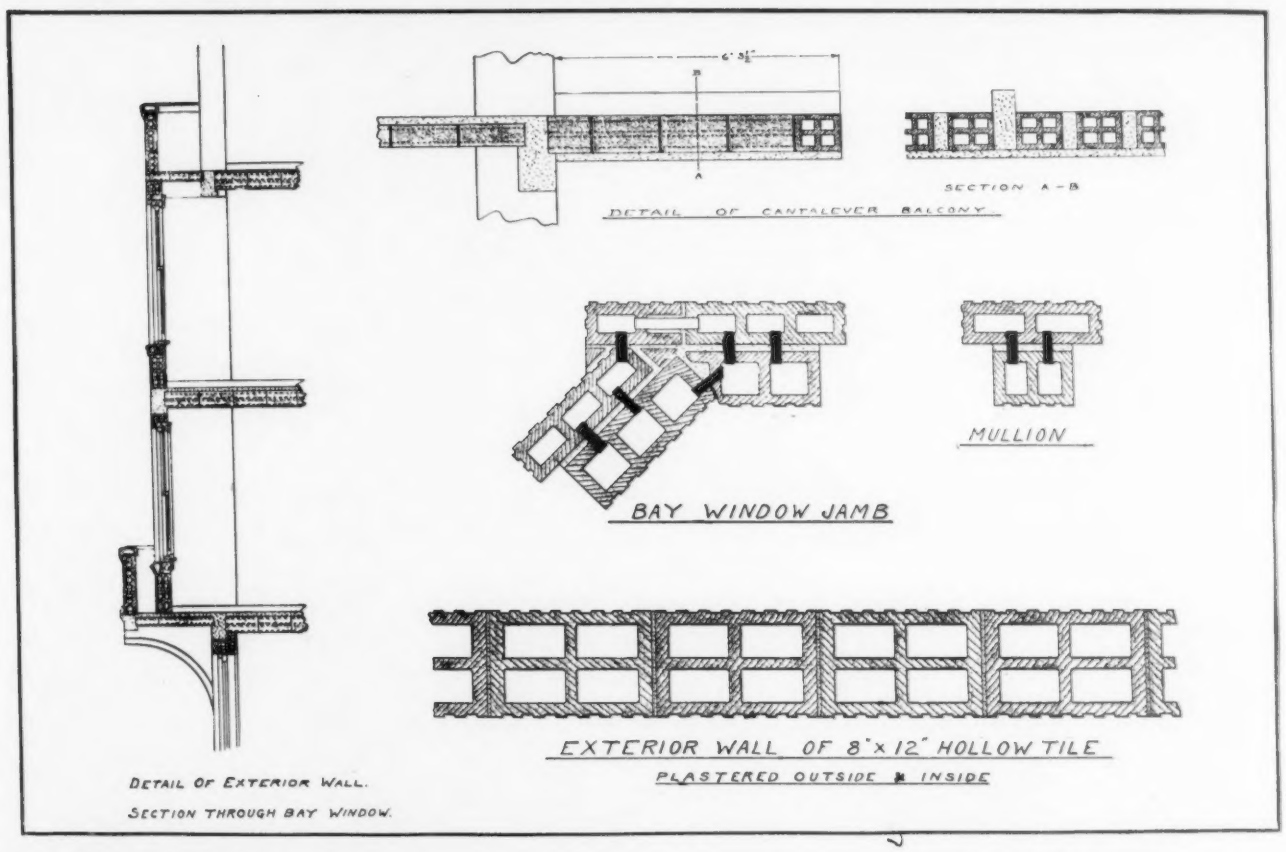
A wide octagonal stairway leads up from the lobby into the exchange. Here is entered a great, irregular hall covering an area of seven thousand square feet. The design of this is conspicuous in the introduction of massive columns and piers, which in reality are the principal supporting elements of the structure above this point. They have been treated in a frank yet conservative manner, which in no way detracts from the expression of the construction.

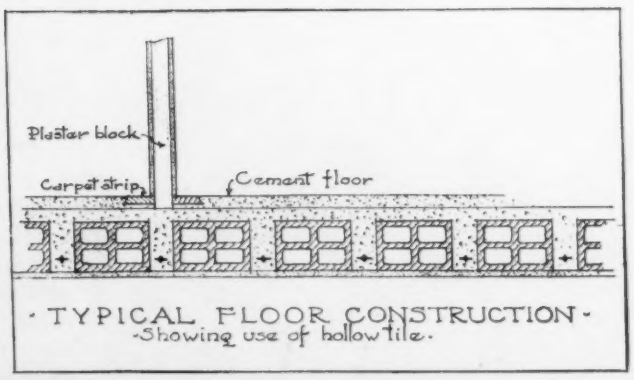


The general office of the hotel is placed at the rear of the exchange, across from the two forward elevators, which are calculated to do the greater amount of service required. The height of the exchange gives a well-proportioned room and allows for a gallery at one end, where the house orchestra may be placed without interfering in any way with the general accommodations of the hotel.

The principal circulative space of the hotel is the solarium. Its purpose is at once expressed in that it is entirely enclosed by glass, except where the necessary supporting piers are introduced. Where emphasized by a broad, low dome it divides and sweeps out in easy contour, to be finally interrupted by the two square pavilions directly overlooking the Boardwalk.

Included within this spreading horseshoe of the solarium is the plaza, an open porch of broad expanse. The outer circumference of this, extending back within the inner line of the solarium, provides a suitably protected area where breakfast may be served in the open air, after the custom of well-regulated European hotels. A preparation room for this purpose occurs on the floor below. The front of the plaza, reaching out with a large radius, extends well beyond the building line, affording ample and splendid opportunities for unobstructed views of Atlantic City life. A plain wrought iron railing is designed with the purpose that the outlook may be interfered with as little as possible. This open porch is paved with a graded floor of cement laid out in geometrical designs,





accentuated and modified by such colors as give a characteristic and harmonious whole.

Towards the back of the solarium and under the small dome is the space to be used as a dance hall. On each side of this, somewhat apart from the general circulation, are four interesting fireplaces for the comfort of those not caring to take any active part in the festivities.

Out of the exchange and approached by the principal stairway is the sun gallery which, extending back along the body of the building, turns and circles across Ohio Avenue, there connecting with a similar parlor on the Marlborough side, thus forming the principal artery of the two hotels.

Opening from this sun gallery the European dining room occupies the remaining space afforded by the main body of the house. This will be adaptable to the use of the two hotels. The architectural and decorative treatment shows much study and serious design. The lower portions of the heavy piers occasioned by the construction are left severely plain.

Opposite this room and across the corridor is the banquet room, a room of like character and capacity, but one that will be used only on such occasions as its name suggests.

These dining halls connect directly with the kitchen by a common passage at the rear of the main corridor.

The majority of bedrooms in the main body of the house have been treated with individual projecting bays which permit of an extended range of view. Connected to each bedroom is a private bath. Running ice water is supplied by a system of circulation heavily insulated, and all baths are provided with fresh and salt, besides hot and cold water. All plumbing and steam risers have been concealed by the use of permanent pipe ducts installed on the walls of all bathrooms. An opportunity for ready inspection at every floor is made possible by the use of an adjustable duct cover. This entirely does away with the always objectionable condition of exposed piping. The bathrooms are finished with a plain seven-eighths inch ceramic tile and sanitary base.

A GROUP OF TERRA COTTA DETAILS.

DETAIL OF STACK.

Although every precaution has been taken to make the building as nearly fireproof as possible, several fire escapes have been provided, also a fire tower with solid walls twelve inches thick, enclosing a stairway running the entire story height of the structure.

Fire danger against outside sources is guarded against by the adoption of an extended sprinkler system occurring on the south side of the building. This provides an outlet over each window or series of windows, so that in case of fire from adjoining properties a veritable sheet of water can be sprayed down the face of the wall.

The kitchen and machinery building at the rear of the hotel proper is a structure 102 feet by 115 feet, three stories in height. Provision has been made for the ready inspection by guests of the manner and methods employed in conducting this portion of the business.

The mechanical equipment includes six 150 horse-power boilers of the return tubular type. For the supply of electricity for lighting and power purposes a 250-kw. direct-connected generating plant has been installed. For refrigeration there are two six-ton ammonia compressors run from a belt driven line shaft, and one forty-ton compressor direct-connected to a Corliss engine. From this extended line shaft is driven the ice water circulating pump, feed pump and house circulating pump, besides machines for minor services, such as motor power for the laundry.

The first floor is devoted entirely to the appurtenances of the kitchen. Overlooking the kitchen at one end is a gallery from which the guest may have opportunity to inspect the preparation of meals.

This innovation from the usual style of hotels shows a distinct mark of progress in design and construction, and will always demand attention from those interested in work not bound by precedent.

Editorial Comment and Selected Miscellany

ASSISTANCE TO SAN FRANCISCO ARCHITECTS.

WHILE the flames were still blazing over the ruined city, the officials of San Francisco telegraphed to several of the larger eastern cities asking how many architects and draughtsmen could be sent on at once. This call is only one of the many instances of foolish hysteria which this catastrophe has developed. Unfortunately some of the relief committees in the eastern cities were affected much the same way, and in Boston a call was made at once upon the Boston Society of Architects to furnish architects and draughtsmen by the carload to be shipped offhand to the West.

GRACE CHURCH CHAPEL, CHICAGO.
Cram, Goodhue & Ferguson, Architects.
Interior trim of terra cotta, made by Northwestern Terra Cotta Co.

Those who recall the experiences at Baltimore immediately after its fire will appreciate the position that architects could be forced into who would trust themselves unasked upon a community at a crisis of this sort, and the Boston Society of Architects wisely declined to be rushed into an ill-considered action. At the urgent request, however, of the relief association, a committee of the Society of Architects called for volunteers to go as draughtsmen to the West to offer their services to the San Francisco architects.

There were over eighty responses, and out of this number a selection of twenty capable, experienced draughtsmen of various grades were sent at the expense of the relief committee to San Francisco, with instructions to place themselves at the disposal of the San Francisco architects and to assist them in any way they could.

TERRA COTTA CAP BY HOPPIN & KOEN, ARCHITECTS.
New York Architectural Terra Cotta Co., Makers.

Similar requests have been sent to other cities. At this writing, however, it is not known in just what form the response has been made. It is quite certain that there will be a large amount of the rebuilding intrusted to architects outside the city, but aside from the question of professional conduct it certainly would be poor business for an architect without any local affiliations or influence to thrust himself unasked upon the San Francisco community. We sincerely trust that the self-respecting architects everywhere will feel disposed to help in any manner the San Francisco architects, but will appreciate that their western brethren are perfectly able to cope with the great bulk of the work which will be done in that city.

This is an emergency which calls for cordial coöperation, but does not require undercutting competition.

DETAIL OF RAILWAY STATION, BAY CITY, MICH.
W. T. Cooper & Son, Architects.
Built of "Ironclay" Brick.

BUILDING FOR THE RUMFORD FALLS POWER CO., RUMFORD FALLS, ME.
Stone, Carpenter & Willson, Architects.
Built entirely of gray terra cotta, made by Excelsior Terra Cotta Co.

INTERESTING CAPITAL.

IT cannot be too strongly emphasized that the great damage at San Francisco was chargeable to the poor character of the buildings, which were easily shaken down and put in shape to become a ready prey for flames. In the rebuilding of the city large amounts of money will be needed at once. If San Francisco desires to make investments attractive in the burnt district the city must at once revise its building laws and make such regulations as will give security to invested funds. Building is an exact science to a very considerable degree, and it is so perfectly possible to rebuild the city in such shape that a recurrence of this disaster shall be well-nigh impossible, that there ought not to be the slightest tolerance within the business district of anything but thoroughly first-class construction. This will mean that the cost of building will undoubtedly be increased, but the increase will be comparatively insignificant in comparison with the terrible damage which has already been charged up, and which is liable to occur again if conditions in the future are as they have been in the past. A business community like San Francisco can better afford to pay for first-class building than to pay for a first-class fire.

NATIONAL SOLDIERS HOME, JOHNSON CITY, TENN.

IN addition to the illustrations of the National Soldiers Home at Johnson City, which are published in this issue, there were published in THE BRICKBUILDER for April, 1903, plans of the Hospital Group; plans, elevation, and details of the Hospital Ward Building; plans and elevations of the Kitchen Building, and plans and elevations of the Hospital Administration Building. And in THE BRICKBUILDER for May, 1904, views of the Mess Hall and portions of the Hospital Group.

DETAIL EXECUTED BY SOUTH AMBOY TERRA COTTA CO.

MATERIALS EMPLOYED IN THE HOTEL BLENHEIM.

THE structural work for the Hotel Blenheim was executed by the National Fireproofing Company; Celadon tiles were used on the roof; Moravian and Grueby tiles were used in the decoration of the walls, and the terra cotta details were furnished by the Conkling-Armstrong Terra Cotta Company.

IN GENERAL.

Cram, Goodhue & Ferguson have been selected as architects for the new St. Thomas' Church, New York City.

Cass Gilbert has removed his New York office to 11 East 24th Street.

Washington University, St. Louis, has offered one scholarship, for a regular student in architecture, to the Architectural League of America. The value of the scholarship is one hundred and fifty dollars annually.

President Ernest J. Russell and ex-President N. Max Dunning will represent the Architectural League of America at the International Congress of Architects to be held in London during July.

The Gargoyle Club, composed of the younger architects and draughtsmen of New York City, has been organized. The objects of the club are to promote social intercourse and good fellowship among the members, and to study the fine arts. Henry C. Van Cleef, architect, 220 Broadway, is the president.

TERRA COTTA COLUMNS TO FENCE AND GATEWAY, CREAM OF WHEAT BUILDING, MINNEAPOLIS, MINN.

Harry W. Jones, Architect.
American Terra Cotta and Ceramic Co., Makers.

The Agricultural and Mechanical College of Texas, College Station, Texas, now offers courses in architecture and engineering. Manufacturers' catalogues and samples are desired for this department.

The following named architectural firms are desirous of receiving manufacturers' catalogues and samples: L. Engelmann, 20 Lafayette Building, Portland, Ore.; Irving D. Porter, 1421 F Street, N. W., Washington, D. C.; R. N. Hockenberry & Co., Washington Building, Portland, Ore.; L. D. Brackney, 1 Morehouse Block, El Paso, Texas.

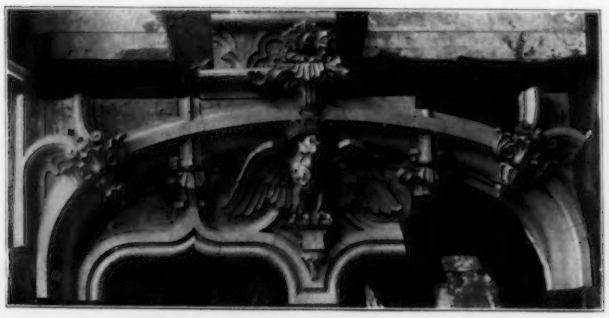
DETAIL EXECUTED BY THE NEW JERSEY TERRA COTTA CO.

The terra cotta used in the churches at Leominster, Mass., and Northampton, Mass., illustrated in connection with Mr. Maginnis's article in THE BRICKBUILDER for March, was made by the Excelsior Terra Cotta Company.

The Ohio Mining and Manufacturing Company will furnish about two million of their dark speckled buff brick for new schoolhouses in Chicago.

The Hydraulic-Press Brick Company of St. Louis has added another to its already long list of brick plants located in the best clay belts of the country. The new one is the Ayer-McCarel Clay Company of Brazil, Ind., the product of which is vitrified gray and buff face bricks, also salt glaze bricks. The present capacity will be doubled.

The South Amboy Terra Cotta Company will furnish the architectural terra cotta for a large stable, which is to be built in New York City by Thompson-Starrett Company. Hill & Stout are the architects.



DETAIL BY CASS GILBERT, ARCHITECT.
Atlantic Terra Cotta Co., Makers.

BUILDING OPERATIONS FOR MARCH.

AT what may be regarded as the opening of the building season the outlook is decidedly promising. Official reports received and formulated by the *American Contractor*, from more than forty of the leading cities of the country, show a general and quite decided gain as compared with the corresponding month, March, of 1905. The following figures show the percentage of gain in cities where the increase is most marked: Cleveland, 43; Chattanooga, 49; Duluth, 668; Louisville, 54; Los Angeles, 84; Mobile, 46; St. Paul, 35; San Francisco, 23; Scranton, 50; Syracuse, 40; Salt Lake City, 31; Trenton, 252; Toledo, 22. The losses reported are somewhat in excess of last month. The following statement shows the percentage in leading cities: Cincinnati, 45; Columbus, 49; Hartford, 32; Kansas City, 70; Milwaukee, 23; Minneapolis, 42; Nashville, 73; Philadelphia, 19; St. Louis, 55; Washington, 49; New York, with $22,928,906, only fairly holds its own, the gain being 2 per cent. At this time last year the building movement was decidedly strong, and to have fairly maintained it is an excellent showing. It is deeply significant that New York makes a slight gain over March, 1905, in spite of the enormous amount of construction work that has been in progress there during the past year. Baltimore shows a loss of only 4 per cent, although the work of rebuilding was at its height a year ago. Conditions are favorable for a prosperous year in construction lines.

DETAILS BY GILLESPIE & CARREL, ARCHITECTS.
Brick Terra Cotta and Tile Co., Makers.

ENGINE HOUSE, ST. LOUIS, MO.
James A. Smith, Architect.
Terra Cotta furnished by St. Louis Terra Cotta Co.

A ROOF COVERED WITH "AMERICAN S" TILE.
Made by Cincinnati Roofing Tile & Terra Cotta Co.

WANTED — Architectural draughtsmen. State experience and salary expected. Address "Buffalo," care "The Brickbuilder."

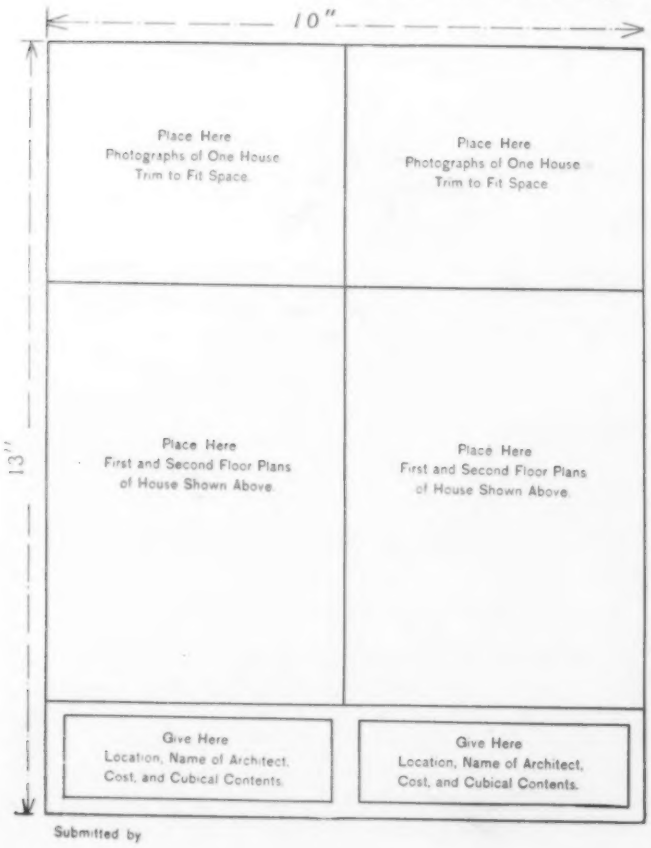
WANTED — An architectural draughtsman. Address Cudworth & Woodworth, Architects, Norwich, Conn.

WANTED — By a New York City Architect, a Draughtsman to do tracing; clean and accurate work and a good general draughtsman. Write, stating experience, references and salary. New York, care "The Brickbuilder."

WANTED, SUPERINTENDENT OF CONSTRUCTION — By a Company engaged in erecting from time to time Bank Buildings of moderate size at different places. Duties would be to examine critically plans and specifications received from the architects; advertise for and collect tenders; make recommendations regarding contracts, after conference with the architects; see that detail drawings are promptly furnished, and exercise a general supervision over the work of the architects and contractors. Salary $200 a month at outset to properly qualified person. Address "Construction," care "The Brickbuilder."

Competition for Photographs and Plans of Two Small Brick Houses.

FIRST PRIZE, $100.00; SECOND PRIZE, $50.00; THIRD PZIZE, $25.00;
FOURTH PRIZE, $15.00; FIFTH PRIZE, $10.00



Competition closes June 1, 1906.

PROGRAM.

The object of the Competition is to obtain a collection of photographs and plans of well designed, well planned houses which have been built of brick at a cost ranging from $3,000 to $7,000 each.

The best in design and plan for the cost, whether this be $3,000 or $7,000, will be given the prizes.

The houses must be detached, and built entirely of brick, except the trim, such as porches and cornices, may be of other materials.

SPECIFIC REQUIREMENTS. On a piece of heavy cardboard measuring exactly 12 x 15 inches, inside border lines drawn 1 inch from edge of cardboard, shall be mounted (at the top of card) in spaces measuring 4 x 5 inches each, one photograph each of two houses.

These photographs should be mounted (pasted on) with care and trimmed to actual size of the spaces.

Below these photographs, in spaces measuring 5 x 7 inches each, shall be drawn or mounted the first and second floor plans of each house.

In the panels below these spaces shall be clearly printed the location (city or town and state), the names of the architects, total cost of each house, and cubical contents.

Below these panels should be given the *nom de plume* of the contestant, consisting of only one word.

The accompanying diagram indicates exactly the manner in which subjects should be presented.

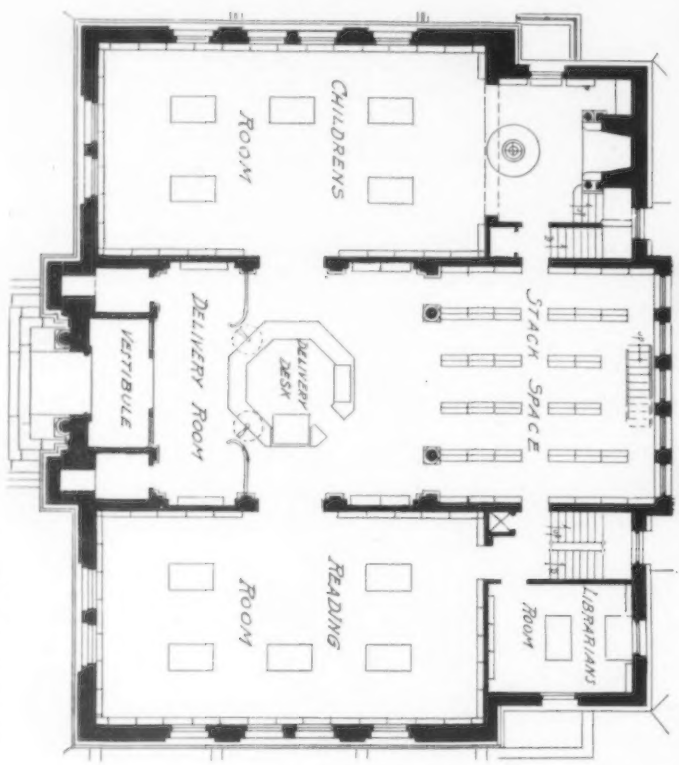
These sheets are to be delivered at the office of THE BRICKBUILDER, 85 Water Street, Boston, Mass., charges prepaid, on or before June 1, 1906. They should be carefully packaged to prevent damage in transit. Accompanying each sheet is to be a sealed envelope with a *nom de plume* on the exterior and containing the true name and address of the contestant.

The Competition will be judged by two well-known architects.

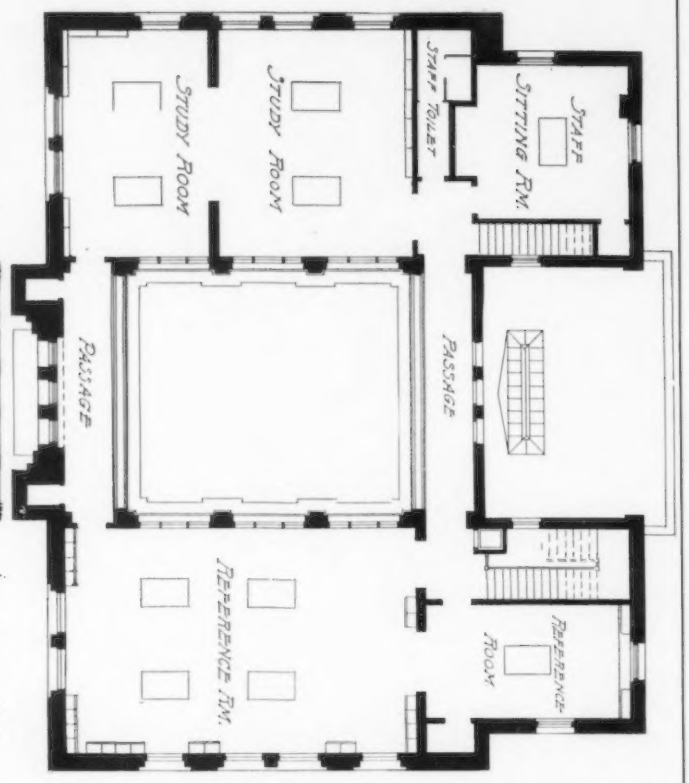
Competition open to every one.

The groups awarded prizes are to become the property of THE BRICKBUILDER, and the right is reserved to publish or exhibit any or all of the others.

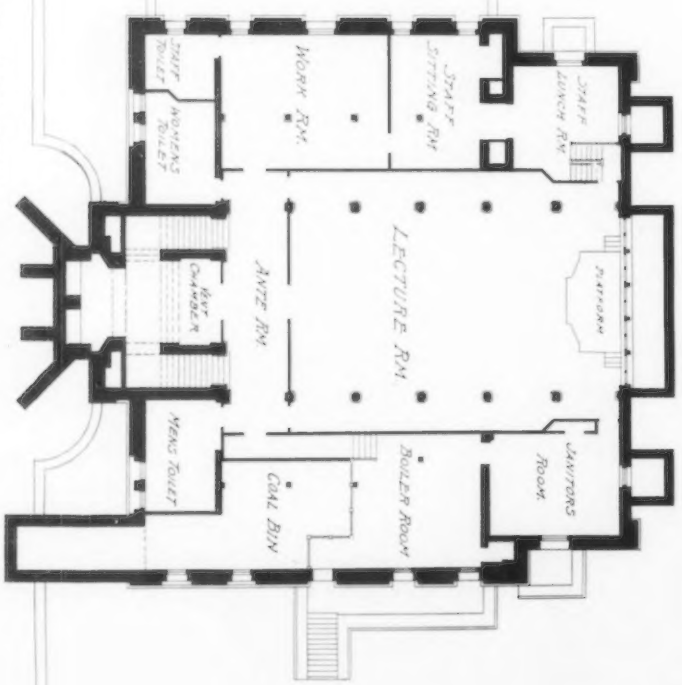
FIRST FLOOR PLAN, FLATBUSH BRANCH.



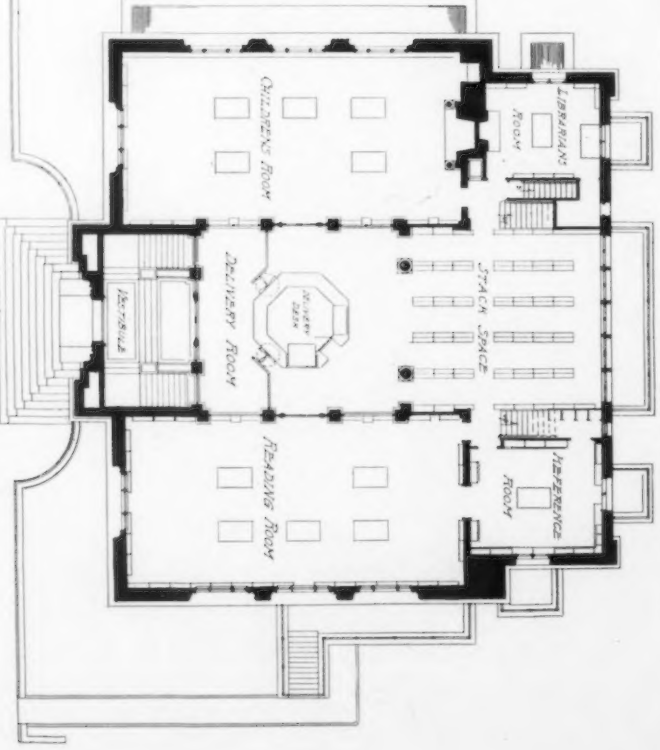
SECOND FLOOR PLAN, FLATBUSH BRANCH.



BASEMENT PLAN, GREENPOINT BRANCH.

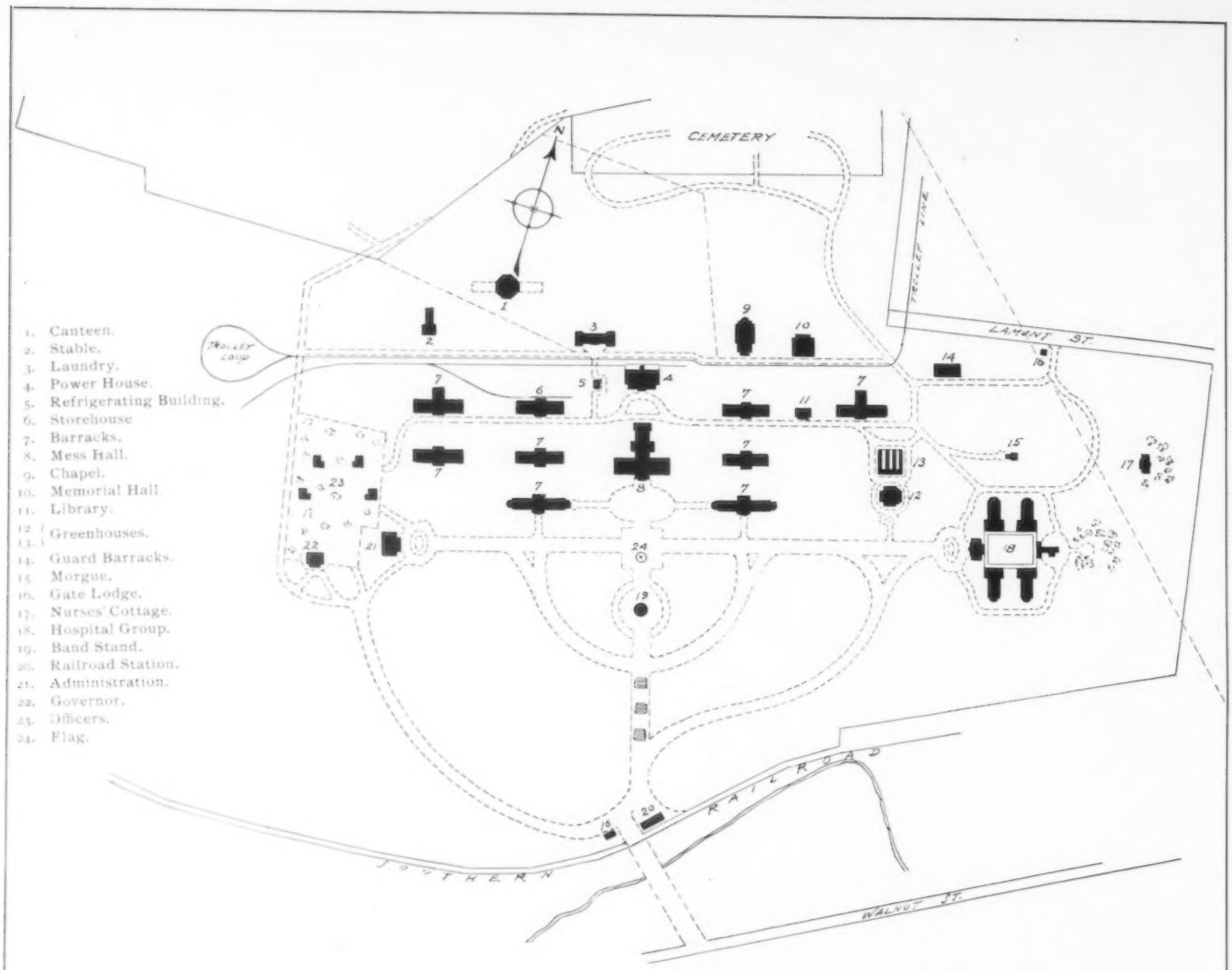


FIRST FLOOR PLAN, GREENPOINT BRANCH.

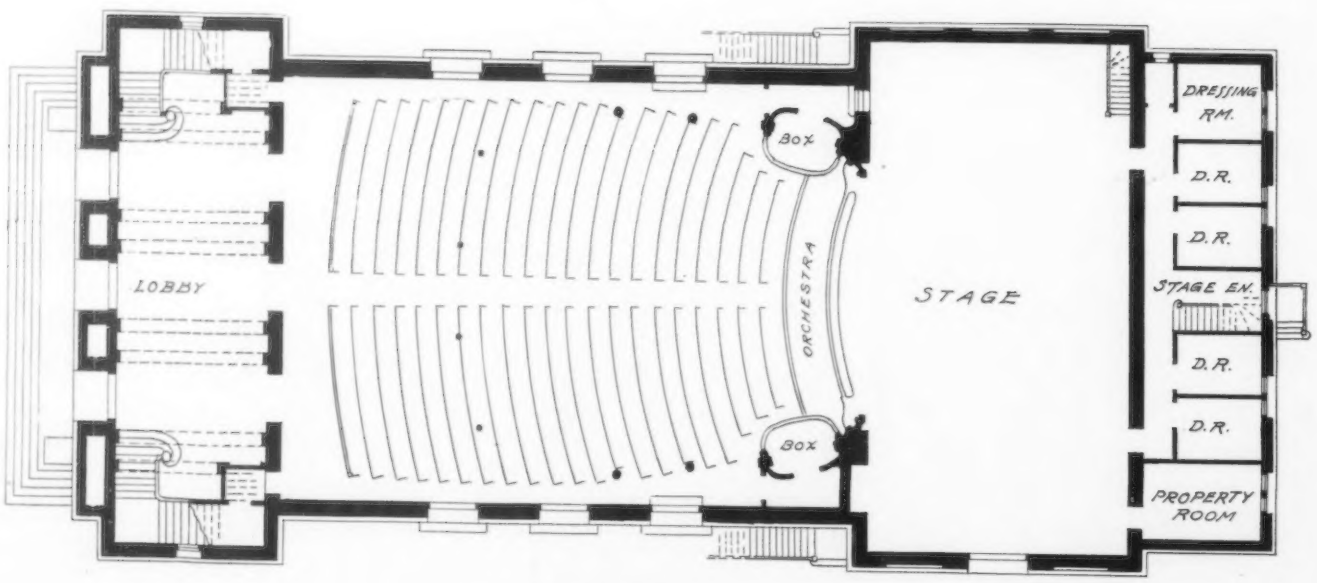


PLANS, CARNEGIE BRANCH LIBRARIES, NEW YORK CITY.

R. L. DAUS, ARCHITECT.



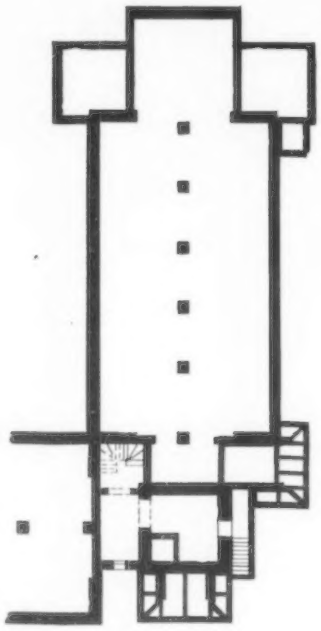
GROUND PLAN.



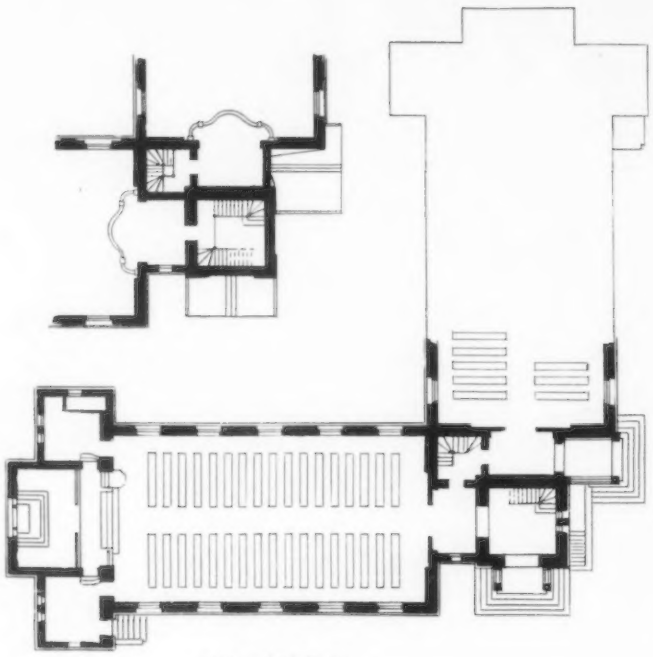
FIRST FLOOR PLAN, MEMORIAL HALL.

NATIONAL HOME FOR DISABLED VOLUNTEER SOLDIERS, JOHNSON CITY, TENN.

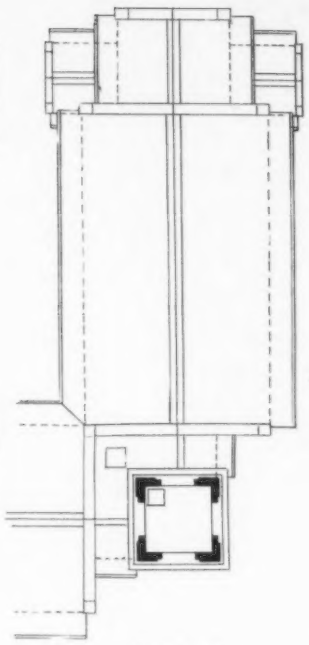
J. H. FREEDLANDER, ARCHITECT.



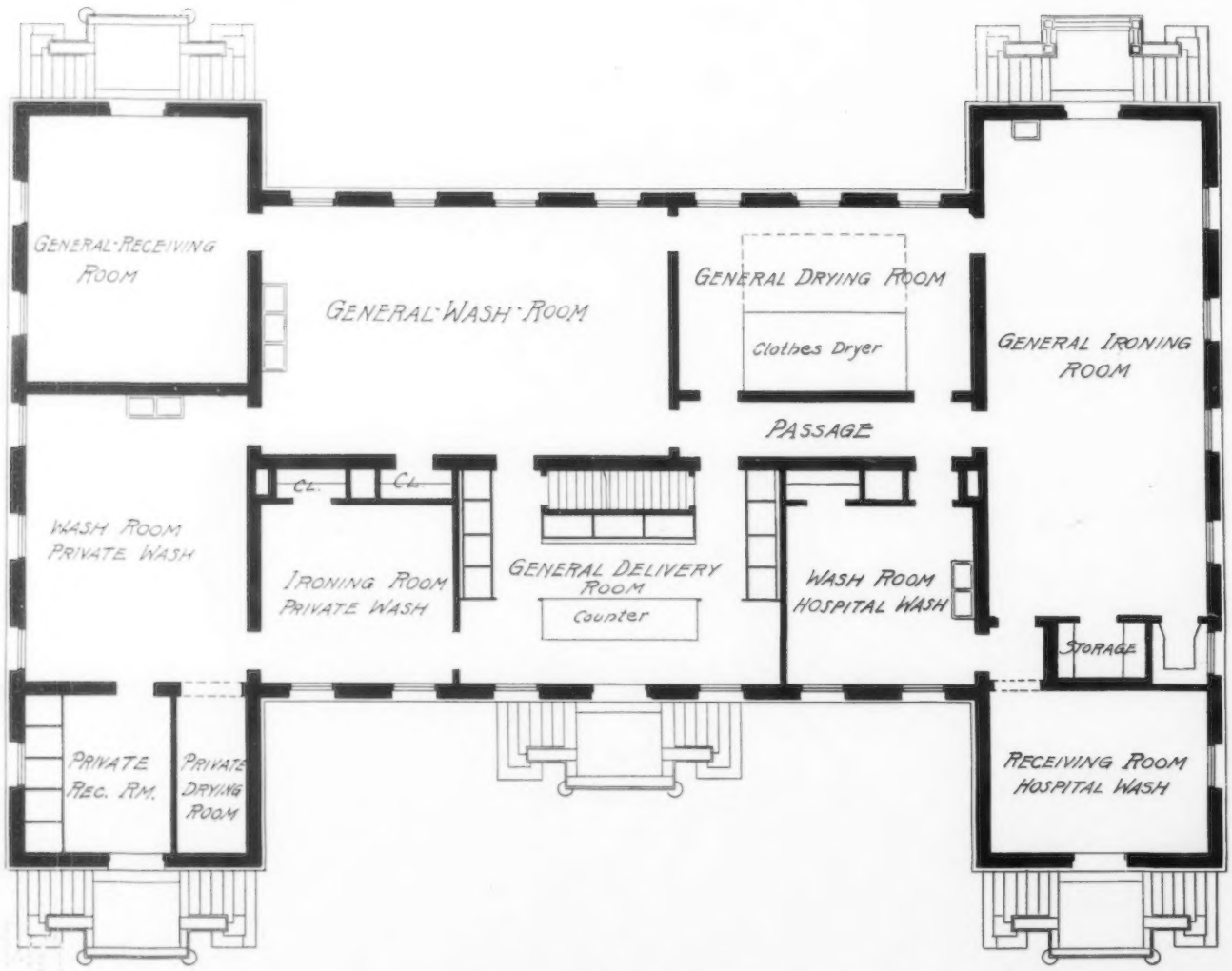
FOUNDATION PLAN.



MAIN FLOOR PLAN.
CHAPEL.



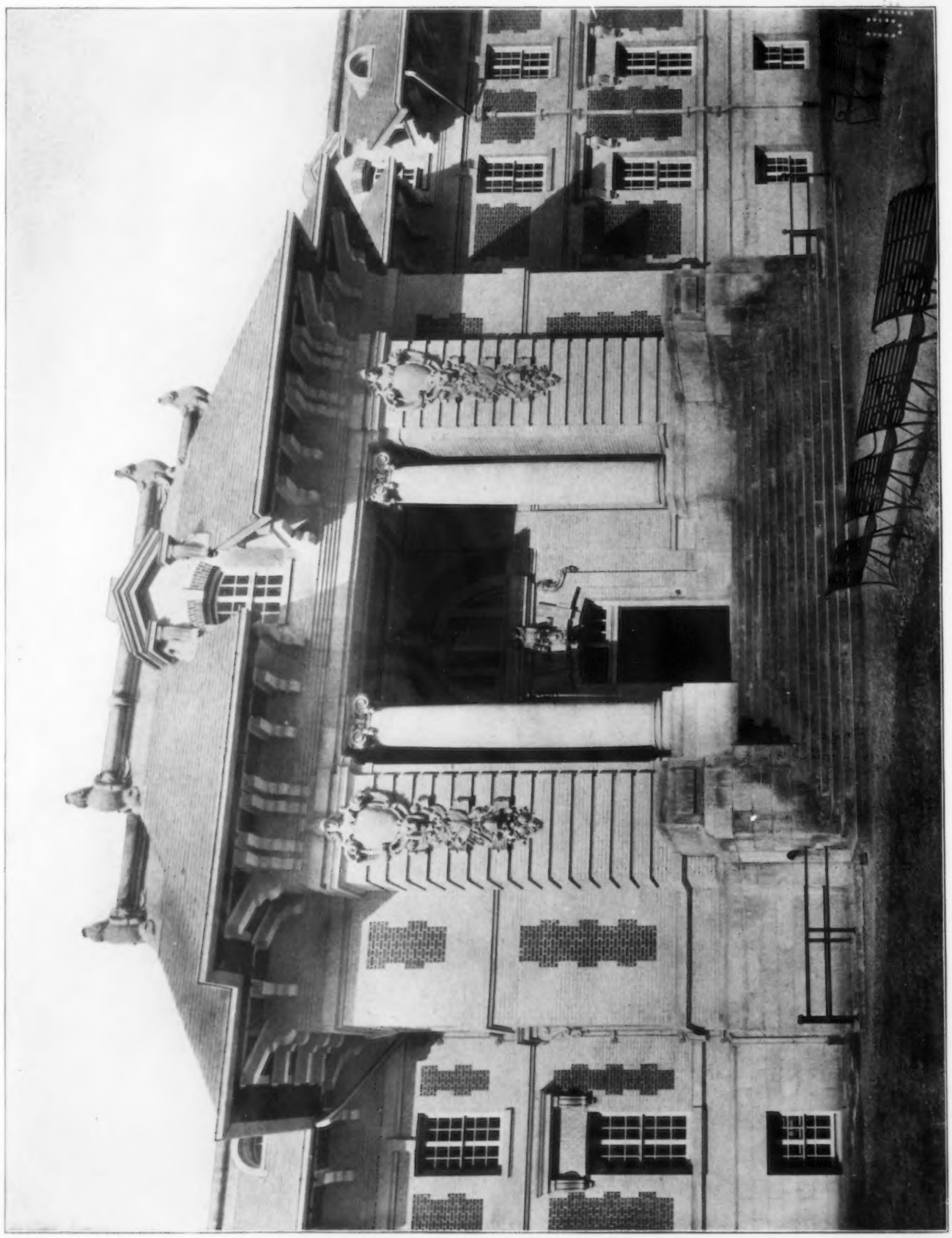
ROOF PLAN.



FIRST FLOOR PLAN, LAUNDRY.

NATIONAL HOME FOR DISABLED VOLUNTEER SOLDIERS, JOHNSON CITY, TENN.

J. H. FREEDLANDER, ARCHITECT.



ENTRANCE TO BARRACKS.

NATIONAL HOME FOR DISABLED VOLUNTEER SOLDIERS. JOHNSON CITY, TENN.
J. H. FREEDLANDER, ARCHITECT.

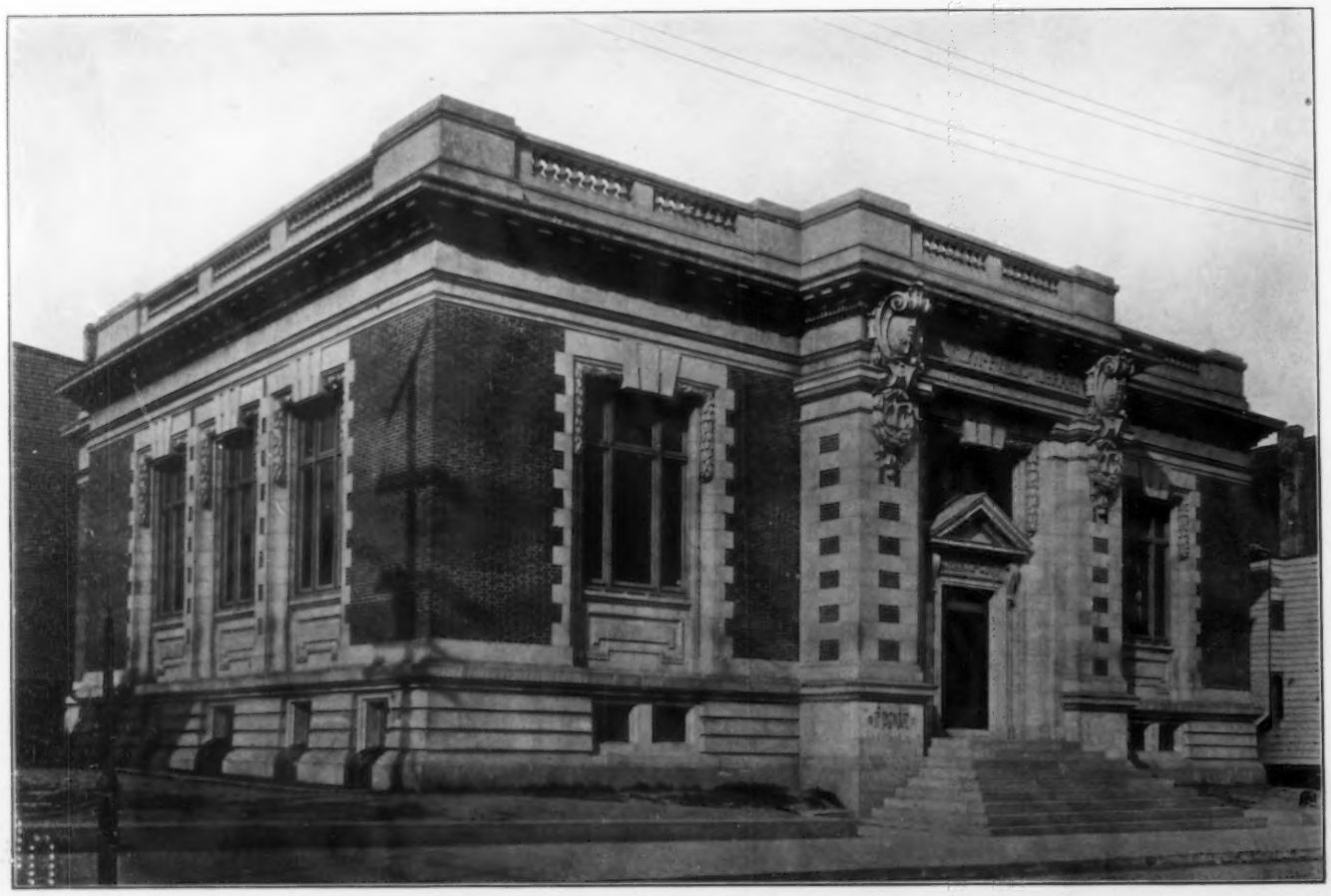
HOSPITAL GROUP, LOOKING SOUTH.

MEMORIAL HALL.

NATIONAL HOME FOR DISABLED VOLUNTEER SOLDIERS, JOHNSON CITY, TENN.

J. H. FREEDLANDER, ARCHITECT.

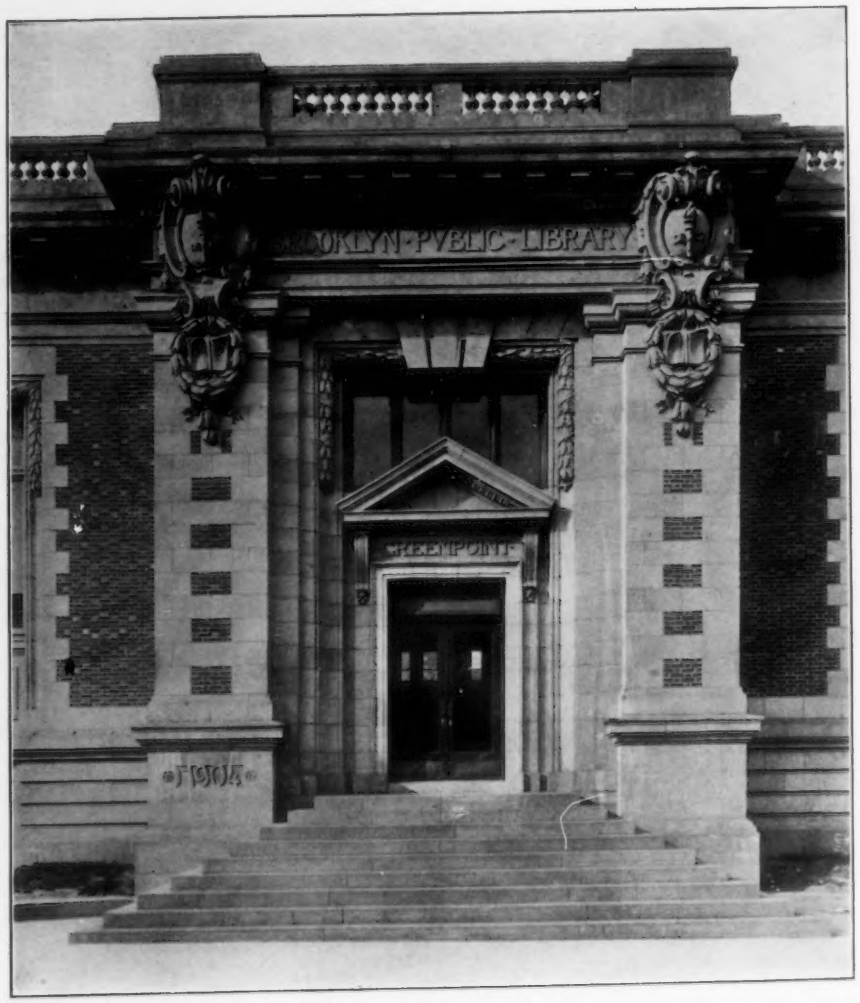
CARNEGIE BRANCH LIBRARY, FLATBUSH, N. Y. R. L. DAUS, ARCHITECT.



CARNEGIE BRANCH LIBRARY, GREENPOINT, N. Y. R. L. DAUS, ARCHITECT.

COTTAGES AT PORT SUNLIGHT, ENGLAND.

COTTAGES AT PORT SUNLIGHT, ENGLAND.



DETAIL MAIN ENTRANCE.
CARNEGIE BRANCH LIBRARY, GREENPOINT, N. Y.
R. L. DAUS, ARCHITECT.

DETAIL, MAIN ENTRANCE.
CARNEGIE BRANCH LIBRARY, FLATBUSH, N. Y
R. L. DAUS, ARCHITECT.

MESS HALL.

CHAPEL.

NATIONAL HOME FOR DISABLED VOLUNTEER SOLDIERS, JOHNSON CITY, TENN.

J. H. FREEDLANDER, ARCHITECT.

BARRACKS.

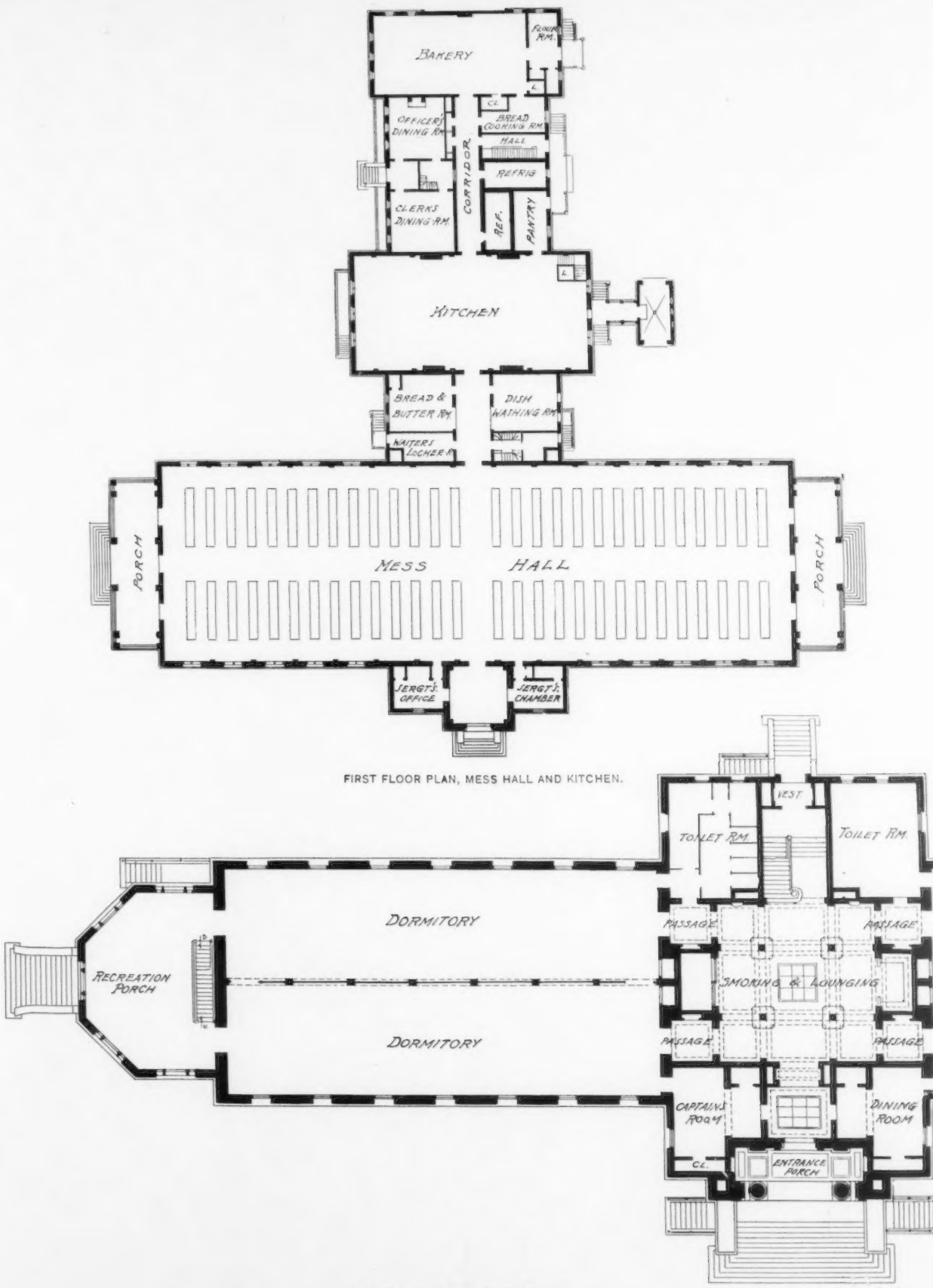
ADMINISTRATION BUILDING.

LAUNDRY

POWER HOUSE.

NATIONAL HOME FOR DISABLED VOLUNTEER SOLDIERS, JOHNSON CITY, TENN.

J. H. FREEDLANDER, ARCHITECT.

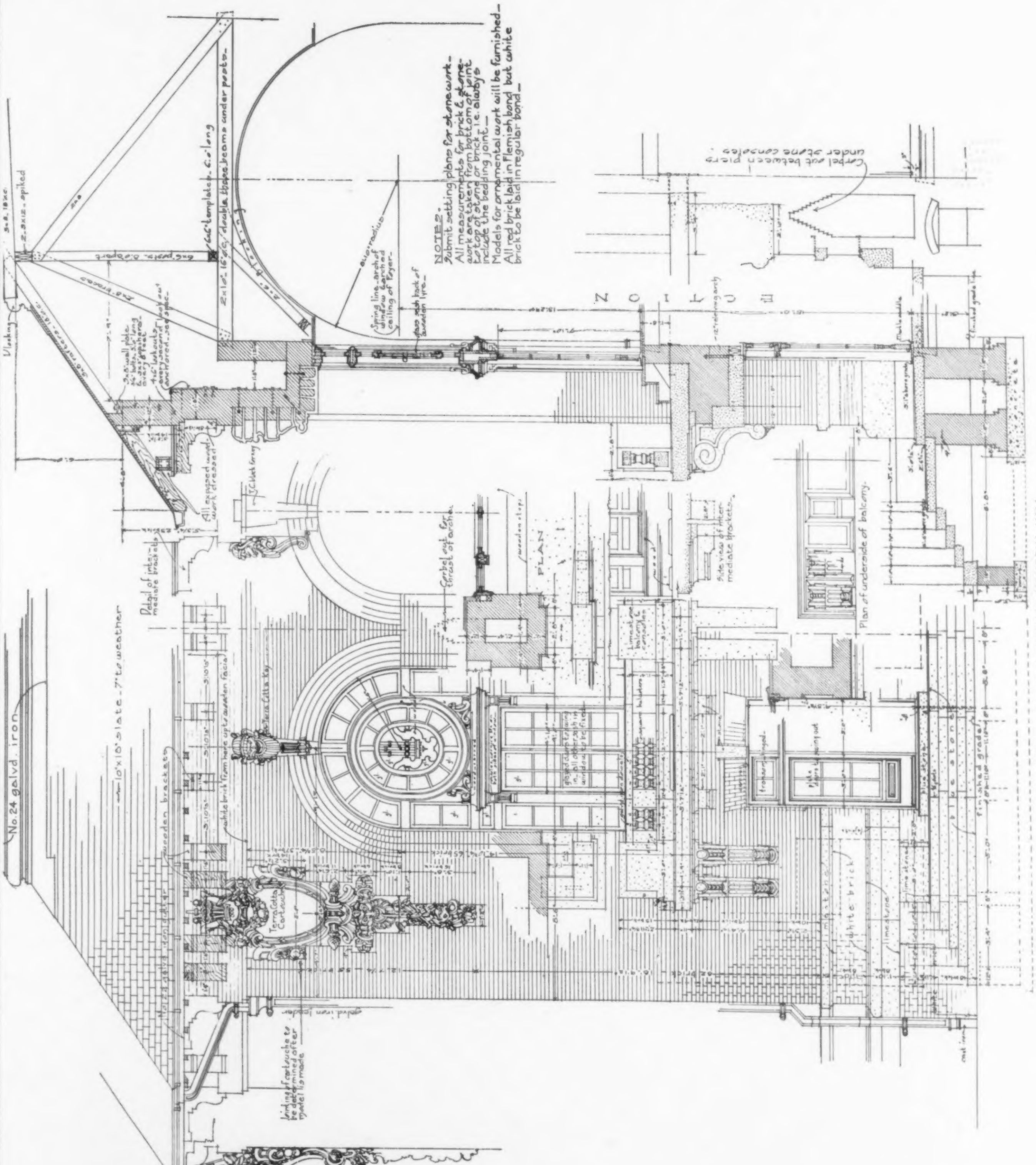


FIRST FLOOR PLAN, MESS HALL AND KITCHEN.

FIRST FLOOR PLAN, BARRACKS.

NATIONAL HOME FOR DISABLED VOLUNTEER SOLDIERS, JOHNSON CITY, TENN.

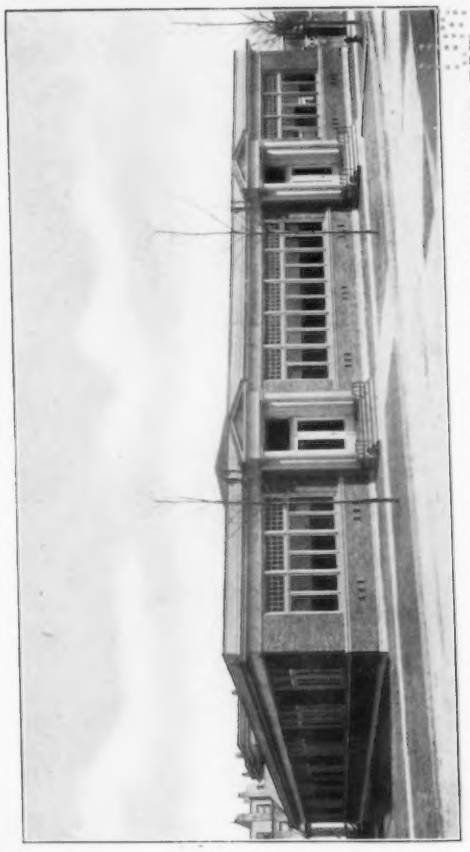
J. H. FREEDLANDER, ARCHITECT.



DETAILS, FRONT ELEVATION, MEMORIAL HALL.

NATIONAL HOME FOR DISABLED VOLUNTEER SOLDIERS, JOHNSON CITY, TENN.

J. H. FREEDLANDER, ARCHITECT.



A COMBINATION CLASSROOM AND GYMNASIUM BUILDING FOR THE UNIVERSITY OF CHICAGO, CHICAGO.

JAMES GAMBLE ROGERS, ARCHITECT.

(An athletic field is provided for in the space occupied by the half-tone illustration and titling.